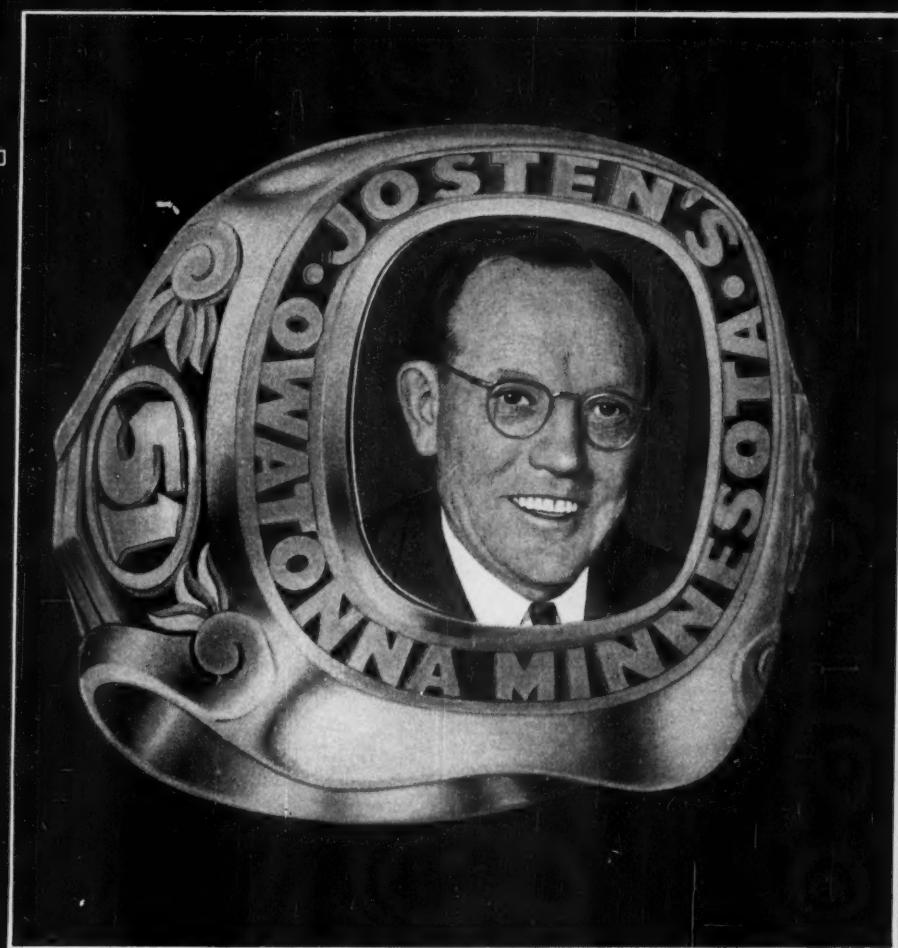


BUSINESS WEEK

HOW BAD ARE OUR
High Schools

PAGE 114



Josten's Gainey: High school seniors, Texas Republicans, Arabian horses. Page 88

A MCGRAW HILL PUBLICATION

MAY 12, 1951



Chemical Progress

News of developments from General Electric's Chemical Department that can be important to your business.



Among the new furniture polishes containing G-E silicones is O-Cedar Dri-Glo—described by its manufacturer as being exceptionally long-lasting and easy to apply.

Once again the unique properties of silicones are helping to revolutionize an industry. Furniture polish manufacturers (like O-Cedar Corp'n) find that a properly formulated polish containing G-E silicone oils combines the protective qualities of wax with the easy application features of oils. G-E silicone oils also make furniture polishes more resistant to ultraviolet rays and to water.

Industry already knows how auto polishes have been improved by adding General Electric silicone oils. The new success in the furniture polish field is expected to encourage still other polish makers to improve their products through G-E silicones.

Interested in better polishes? Write for details to Chemical Department, General Electric Company, Pittsfield 13, Massachusetts.

PLASTICS COMPOUNDS • SILICONES • INSULATING MATERIALS • GLYPTAL® ALKYD RESINS • PLASTICS LAMINATING, MOLDING, AND EXTRUDING

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GENERAL ELECTRIC

G-E CHEMICAL FACILITIES HELP SPEED DEFENSE PRODUCTION



General Electric chemical products expedite the nation's preparedness program in many ways. G-E chemical plants from Massachusetts to California are turning out such vital defense items as plastics parts, insulating materials, silicone products and protective finishes.

The pistol-grip handle for this searchlight is molded of G-E rubber-phenolic compound. The high internal resilience of this compound reduces breakage during assembly and in actual service. G-E rubber-phenolics have five times the shock-resistance of conventional phenolics.



"HELP!" CRIED THE BOY. "OVER HERE! HELP!"

He went under the ice to save a boy's life

Telephone lineman braves icy water three times.

**Other members of construction crew help
in rescue and resuscitation**

IT WAS a cold winter afternoon and a telephone construction crew was working along South Road in Bedford, Massachusetts.

Suddenly they heard a boy's voice from a nearby creek.

"Help! . . . over here . . . help!"

Robert B. Foley was the first telephone man to reach the bank. A frantic boy told him that his buddy, Donald King, had fallen into a hole and was under the ice.

Foley crawled over the surface flat on his stomach to distribute his weight and keep the ice from breaking. He got to the hole and without hesitating let himself down in the water, clear out of sight.



Suddenly there was a splashing in the hole in the ice. It was Foley, and he had the boy in his arms.



He went down twice without finding Donald. Then the boy on the bank yelled . . .

"No, not that hole. The one over there."

Down went Foley for the third time, pushing himself along under the ice toward a smaller hole, five or six feet away.

The next few seconds seemed like years, for he was out of sight. Then suddenly there was a splashing in the open water. It was Foley, and he had the boy in his arms.

Immediately John F. Fitzgerald, the foreman of the construction crew and trained for first aid in emergencies,

started to resuscitate the boy and had him breathing by the time the police and firemen arrived with an inhalator.

There's a postscript to the story that you might like to hear.

In recognition of their deed, Robert Foley and John Fitzgerald were given Vail Medals, the traditional awards to telephone people for meritorious acts performed in the public service. Robert Foley also was awarded a bronze medal by the Carnegie Hero Fund. Malcolm S. Cate, Jr., Harold G. Nelson, John T. Cochran, Howard C. Roche and James H. Lucas, the other members of the construction crew, received Company Citations.

HELPING HANDS—This is just one of many stories of the skill, courage and resourcefulness of telephone men and women in times of emergency. . . . Not all of them tell of the saving of a life. But there is scarcely a minute that someone in trouble or urgent need does not turn to the telephone for help.

No matter who it may be or what the hour of the day or night, you know that telephone people will do everything they can to be of service. And do it willingly and courteously, with all possible speed. . . . **BELL TELEPHONE SYSTEM**



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such a quiet office

It isn't luck!.. It's
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Acoustical Ceiling

You'll be surprised how little it costs to reduce
disturbing noise and increase productive efficiency—
with Fibretonce Ceiling Panels. Let our acoustical engineers convince you with an estimate.



Fibretonce Acoustical Panels are easily, quickly installed over new or existing construction.

THOUSANDS AND THOUSANDS of "noise traps" to help end harmful noise—that's the secret of Fibretonce, one of several types of Johns-Manville Acoustical Ceilings.

Each 12"-square unit of Fibretonce contains hundreds of small cylindrical holes drilled in the sound-absorbing material. As sound waves strike the ceiling, they enter the "noise traps" where the sound energy is dissipated.

Fibretonce is pre-decorated, attractive in appearance, can be painted and repainted, and is designed to meet the most modest budget. Available with flame-resistant finish if desired.

Other J-M Acoustical Ceilings include Transite*, made of fireproof asbestos; and Sanacoustic*, perforated metal panels backed up with a noncombustible, sound-absorbing element.

Whatever your noise problem, and whatever the type of interior, there's a J-M acoustical material that is *exactly right* to give you the best in sound control.

You'll be under no obligation to let us answer two executive questions: "What will the job cost?" "How soon can you do it?" For a prompt estimate, or free book on "Sound Control," write Johns-Manville, Box 290, N. Y. 16, N. Y.

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what we mean when we say...

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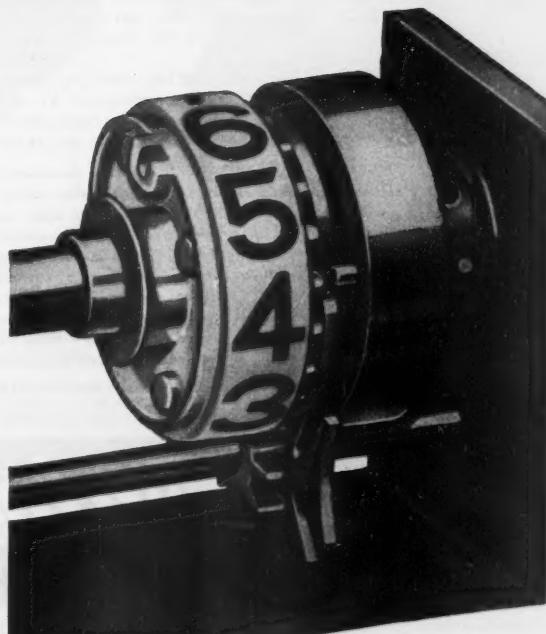
You're looking at a new *and patented* development...featuring the Veeder-Root "Geneva Transfer"...designed for higher speeds and easier readability from a distance.

Here's another vitally important Veeder-Root "first," for use in military equipment. And within the understood limitations of the present-day rule of "first things first" . . . what can we figure out for you?

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COUNTERS

"Count Everything on Earth"

Excerpts from
ENGINEERING REPORTS
R. R. to H. W. C. to 8/30/50

Company "A" — pointed out considerable savings possible by shifting to Nylclad. Purchasing Department estimated this totals almost \$50,000 for the year.

Company "B" — large motor manufacturer has made extensive tests with Nylclad. Savings resulting from use estimated \$20,000. Engineer stated that none of competitive wires checked were nearly as good as Nylclad from heat and pressure resistance standpoint.

Company "C" — This manufacturer of special equipment has approved Nylclad on the basis of chief engineer's recommendation. Most enthusiastic about its resistance to the solvent action of hot varnish.

Company "D" — Winding foreman, previously highly critical, said, "Nylclad is great stuff — it got me out of a hole." He liked the high abrasion resistance against winding abuse.

Company "E" — Chief Engineer says Nylclad is the answer to many of his company's winding problems. Results of tests exceptionally good, particularly the resistance to softening under heat.

Company "F" — Engineer, after testing Nylclad, told buyer he was convinced it was excellent wire and recommended its use. He noted its uniform solderability.

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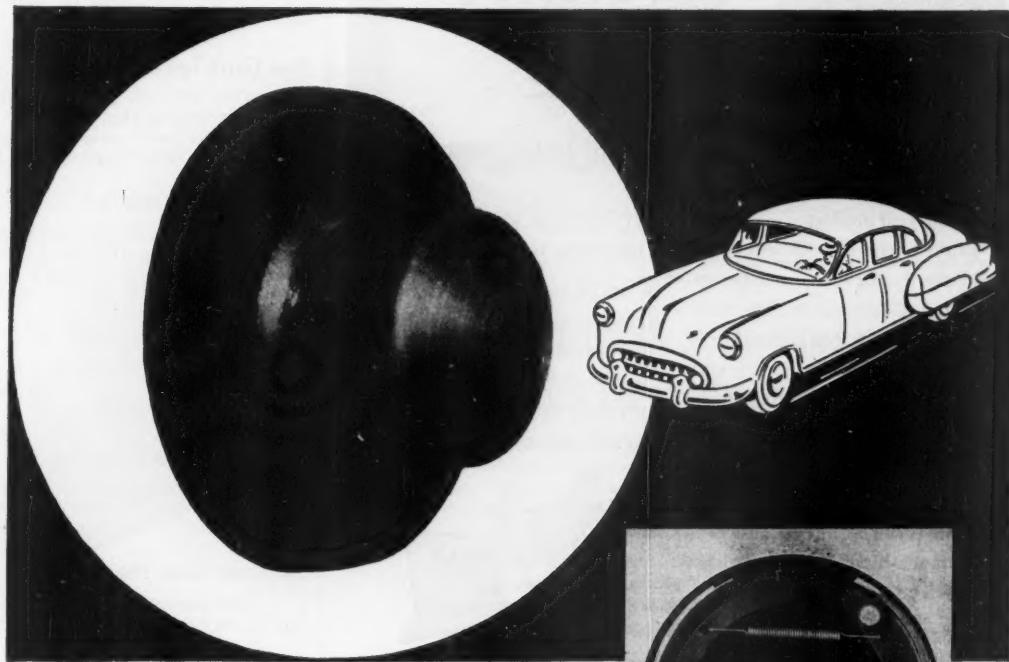
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BUSINESS WEEK • May 12, 1951

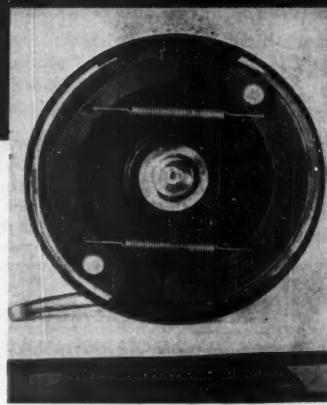
What's U. S. Rubber doing to eliminate brake squeaks?



Located under the vertical leg of a brake shoe, this tiny button or snubber prevents metal-to-metal friction and thereby eliminates squeaks. Made of Enrup, U. S. Rubber's versatile plastic, the button wears better than metal in this application.

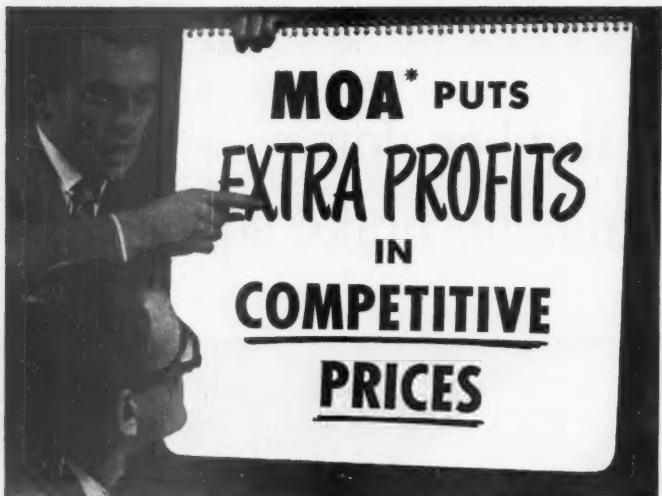
It is a typical example of how "U. S." experts work with original equipment manufacturers to add to the efficiency and consumer satisfaction of their products.

PRODUCT OF



THE HIGH IMPACT resistance and greater abrasion resistance make Enrup valuable on the brake shoe. The button stands up under the high temperatures generated in the brake during rapid deceleration.

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ENGINEERED RUBBER PRODUCTS • FORT WAYNE, INDIANA



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tral California, with its 3,310,000 population, is at your door.

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*MOA stands for METROPOLITAN OAKLAND AREA...includes all of Alameda County. Map spotlights Livermore-Pleasanton section, fast-growing, semi-rural area directly in the path of industrial expansion. Two mainline railways. Fine living conditions and schools. Plentiful local work force.

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Highlights In This Issue

One Man's Meat . . .

. . . is price controlled. Another man's is on the black market. Can it work? P. 19

Rumor Market

• Movies and radio are both jittery trades these days. It takes only about one solid fact to set going the wildest rumors you ever heard. P. 21

You Can't Tell the Players

• There's a lot more involved in the MacArthur hearings than "Truman vs. Mac." A form sheet on the visible and invisible issues being fought over. P. 25

Smart Deal Backfires?

• Everyone figured Lewis pulled a fast one on Julius Krug when he got the tonnage royalty deal. It doesn't look so smart now. Or does it? P. 36

Lifesaver for Movies?

• If you give them Kefauver and MacArthur right on the screen, will they come back into the movie houses? P. 44

A Government Crumbles

• Deaths and resignations are weakening Britain's labor government—while Churchill waits in the wings. P. 161

Nobody Lives There . . .

. . . and everybody works there. And that makes Evendale a rich town. P. 70

THE DEPARTMENTS

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Sinews of "Cordura" make a carpet stronger, lighter, and more flexible. The chain warp in carpets must be strong enough to bind the surface tufts firmly in place. Because "Cordura" is much stronger than natural fibers, a smaller-gauge yarn does the job . . . and ties a smaller, tighter knot around the tufts, at no extra cost.

More strength at no more cost with this Du Pont yarn

Small strong cords of Du Pont "Cordura"** High Tenacity Rayon can do the work of large cords of natural fibers. This means that when you use "Cordura" you can reduce the bulk of a strength section and also cut down on the amount of expensive carcass required. In many cases this not only holds down cost, but improves the product as well.

For example, "Cordura" makes conveyor belts thinner yet stronger, tires that are cooler running, V-belts smaller yet more efficient, high-pressure hoses lighter and safer.

Chances are that the extra strength of "Cordura" can help you improve a product or a process . . . without increasing cost. It may even help you bring a new product into production. We'll be glad to work with you.

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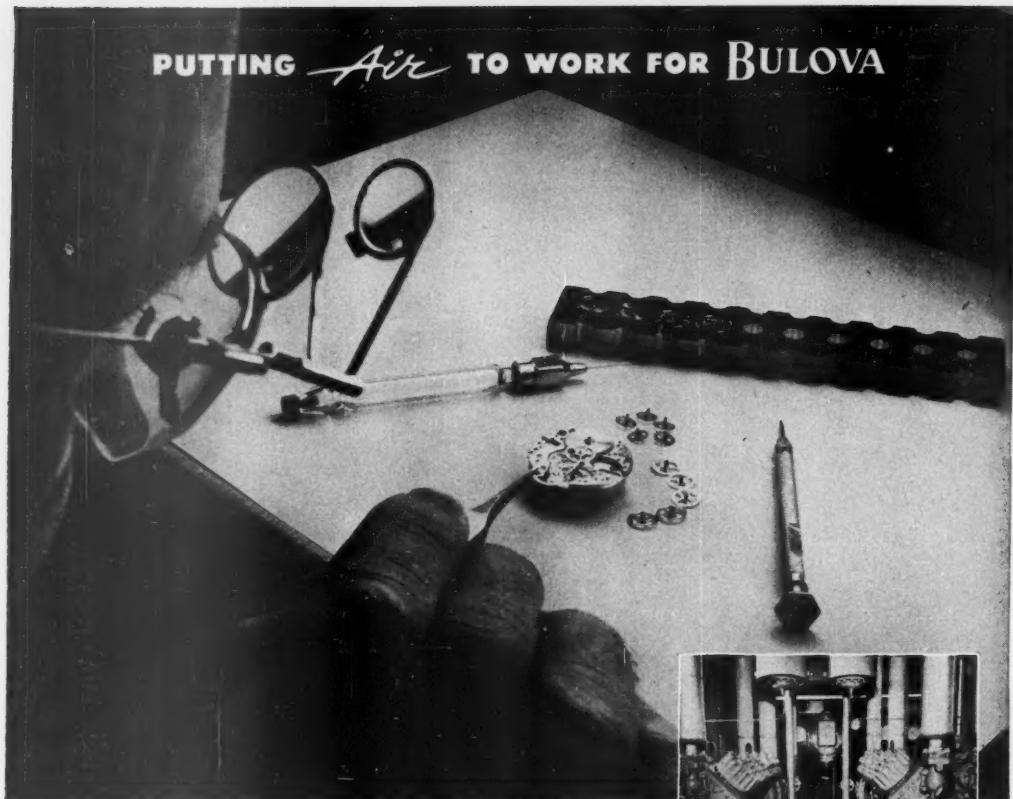


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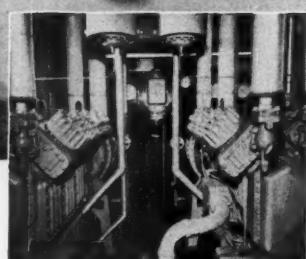
safeguarded . . . and fingers that touch finely finished surfaces don't perspire and cause corrosion.

You can put air to work, too—with air conditioning, air cleaning or air moving equipment. Call the Westinghouse Air Conditioning Distributor in your classified phone directory, or write Westinghouse Electric Corporation, Air Conditioning Division, Hyde Park, Boston 36, Massachusetts.

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Air washing aids in precise humidity control . . . helps cool in summer, reduces static electricity in winter to keep dust off clean surfaces.

BUSINESS OUTLOOK

BUSINESS WEEK

MAY 12, 1951



Consumer-goods production now can drop some without affecting overall output. The picture shapes up like this:

Housing, consumers' durable goods, and inventory building—historic boom makers—are declining in importance. But capital expenditures and defense spending are coming ahead fast enough to plug the hole.

The Federal Reserve Board's tough credit terms already have started to bite into home building. So housing is likely to be less and less of a prop under the boom.

Production of consumer hard goods likewise is due to slow up.

Right now there is speculation that the letup in demand would force slower production schedules. But if that doesn't do it, the material cutbacks will.

So washers, refrigerators, TV sets, and other consumer durables are now coming off the assembly lines at a dwindling rate.

And it looks as if auto output—by far the biggest factor in consumer hard goods—is finally over its crest.

Production of autos for the first four months of 1951 was 2.1-million—up 17% from a year ago. Truck output was up 27%.

But Ward's Reports estimates that this month's production may be only 670,000. Last May it was 700,000.

In June auto makers can use only 75% as much steel for passenger cars as the average monthly use in the first half of 1950 (they are now limited to 80%). And in July that will be cut down to only 70%.

Figures on electric power output are reflecting the consumer-goods slump, at least to some extent.

The margin of gain over a year ago has been pared to less than 12%; not far back, we were running 15% and more ahead. And the first week in May this year was down about 7½% from last January's average.

However, that January to May drop of 7½% isn't much more than seasonal. It just happens to compare with a phenomenal period in 1950.

Last year the boom simply obliterated the "seasonal" in power. June was virtually as high as January. Thus 1951, with even a modest seasonal dip, was bound to lose some of its margin of gain over a year ago.

Inventories are pushing close to the ceiling—if they aren't already there.

The squirreling away of goods during the second half of 1950 added to industrial activity at a \$15-billion annual rate. The first three months of 1951 topped even that.

But businessmen were holding \$66-billion worth of goods on the shelf as far back as the beginning of April. And retail trade since then hasn't been spectacular.

Thus inventory building can add but little—if anything—to future activity.

On the other hand, capital expansion and arms spending are making big contributions to stability.

Industrial expansion, which started rising even before Korea, is still roaring along at a breakneck pace.

In April the value of industrial construction put in place (public and

BUSINESS OUTLOOK (Continued)

BUSINESS WEEK

MAY 12, 1951

private combined) was \$201-million. That's a staggering 142% above the prior April. And every month this year, the gap over a year ago has been widening. In January it was 111% over, February 122%, and in March 126%.

The burden of installing new plant is being carried largely by private industry.

Although the government has been increasing its share in plant expansion outlays, it's still far behind industry—which accounts for 75% of the total.

By way of comparison, in 1941 industry laid out only 38%.

Arms spending—which had been lagging badly—is now making up for lost time.

Only a few months ago, hardly anyone figured that defense output would beat a \$30-billion annual rate until June.

But military spending in April already was over that figure. (Two months before that, it was only \$22-billion.)

The entire business picture could switch from lukewarm to hot in practically no time at all.

Consumer demand during mobilization is highly volatile. Twice before, buyers stampeded the stores and pulled down stocks.

Meanwhile, though, business is feeling a lull.

Here is what the Purchasing Agents Assn. of Chicago report in their survey for April:

• Business is worse for 19% of the members. In March the number affected was only 13%.

• In April 78% reported unchanged or larger inventories—up a notch from the 71% of the month before.

Here's the explanation for skyrocketing bank loans to business:

The Securities & Exchange Commission says that working capital of U. S. corporations stood at \$75.8-billion at the end of 1950. That's a rise of \$5.7-billion in 12 months. Receivables went up \$9.7-billion; inventories \$7.3-billion; it takes money to carry them.

Producers of basic metals face a tough selling job under the Controlled Materials Plan.

Don't get that wrong. There won't be any problem selling the metal left over after defense and defense-supporting supplies have been allocated. The job will be selling the customer the idea that he gets a fair deal.

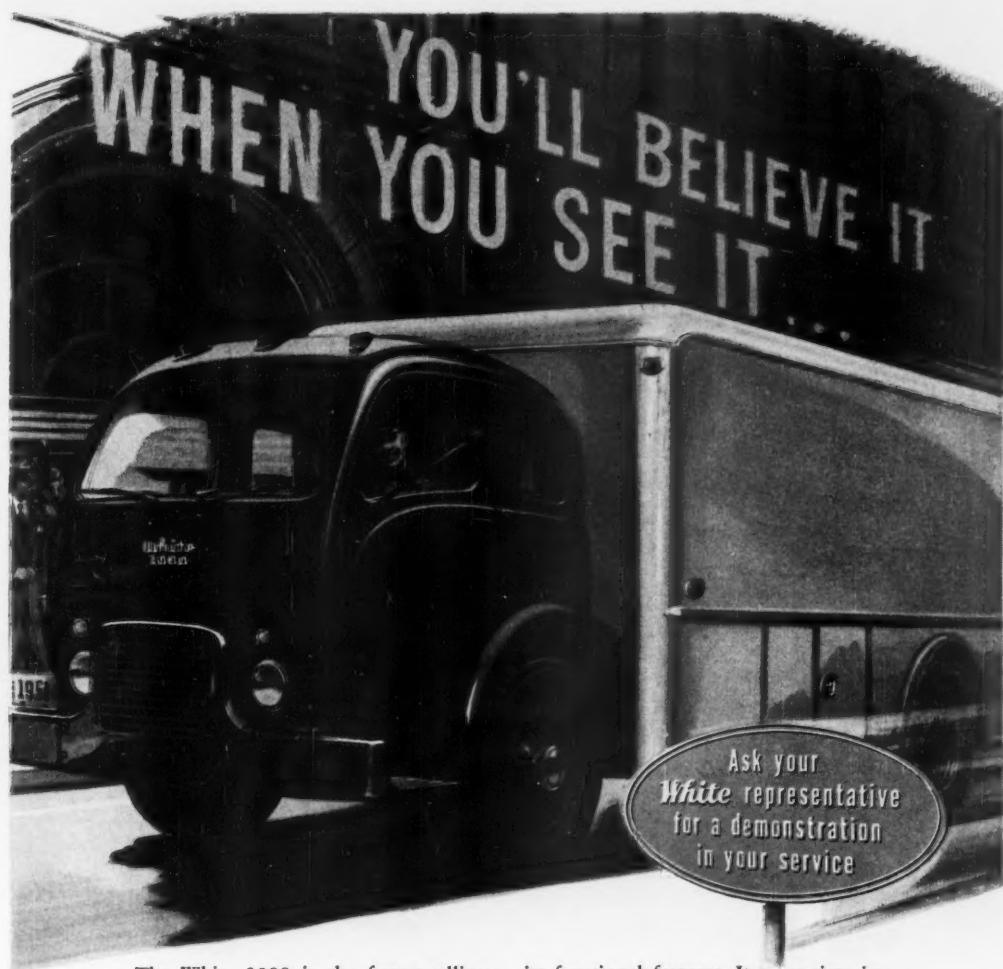
Supplies will be much tighter than users have been led to believe.

Iron Age, for example, has already predicted these free-market tonnages of CMP metals for the near future: steel, less than 25% of total production; virgin aluminum, under 10%; copper, about 25%.

The 3¢ rise in Chilean copper really confuses the market.

The domestic price is 24½¢ a lb. Now comes the 3¢ boost to 27½¢ on all the copper we buy from Chile.

The puzzle is who absorbs the extra charge—and what happens to the price of the copper imports from the rest of the world.



The White 3000 is the fastest-selling truck in White history. Never before have so many different kinds of business—large and small—found a design that cuts costs and time so much. You can prove for yourself how many more deliveries per day are made possible by

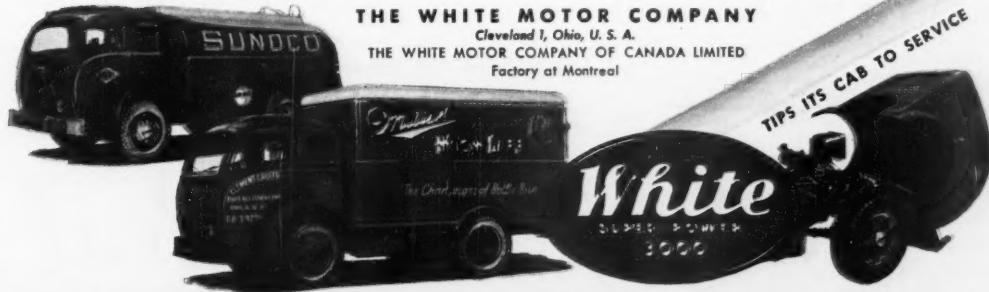
its functional features. It saves time in traffic, with larger loads. Parks more quickly. Loading and unloading are easier, quicker. The driver saves energy getting in and out. In these and other ways, you can measure the time and cost savings at the end of every day.

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Factory at Montreal



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picture of a MAN IN A HURRY

You lean back, completely relaxed when you're aboard today's finest airplane, a "Capital"



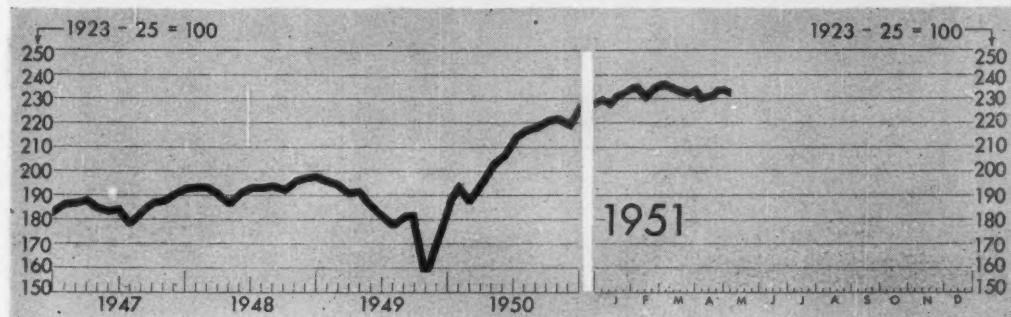
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Capital
AIRLINES

General Offices, Washington, D. C.

FIGURES OF THE WEEK



Business Week Index (above)

PRODUCTION

	\$ Latest Week	Preceding Week	Month Ago	Year Ago	1946 Average
Steel ingot production (thousands of tons)	2,073	2,079	2,045	1,908	1,281
Production of automobiles and trucks	155,930	162,740	158,076	146,337	62,830
Engineering const. awards (Eng. News-Rec. 4-week daily av. in thousands)	\$44,618	\$45,301	\$46,774	\$34,950	\$17,083
Electric power output (millions of kilowatt-hours)	6,560	6,674	6,736	5,872	4,238
Crude oil and condensate production (daily av., thousands of bbls.)	6,174	6,154	6,127	5,058	4,751
Bituminous coal production (daily average, thousands of tons)	1,737	1,772	1,698	1,888	1,745

TRADE

Miscellaneous and l.c.l. carloadings (daily av., thousands of cars)	80	79	81	76	82
All other carloadings (daily av., thousands of cars)	58	56	45	48	53
Department store sales (change from same week of preceding year)	+3%	+1%	-14%	-1%	+30%
Business failures (Dun and Bradstreet, number)	163	162	195	199	217

PRICES

→ Spot commodities, daily index (Moody's Dec. 31, 1931 = 100)	512.6	517.1	520.6	375.7	311.9
Industrial raw materials, daily index (U.S. BLS, Aug., 1939 = 100)	358.3	360.5	365.1	223.3	198.8
Domestic farm products, daily index (U.S. BLS, Aug., 1939 = 100)	403.5	406.7	406.2	319.5	274.7
Finished steel composite (Iron Age, lb.)	4,131¢	4,131¢	4,131¢	3,837¢	2,686¢
Scrap steel composite (Iron Age, ton)	\$43.00	\$43.00	\$43.00	\$32.08	\$20.27
Copper (electrolytic, Connecticut Valley, lb.)	24.500¢	24.500¢	24.500¢	19.500¢	14.045¢
Wheat (No. 2, hard and dark hard winter, Kansas City, bu.)	\$2.45	\$2.44	\$2.43	\$2.32	\$1.97
Cotton, daily price (middling, ten designated markets, lb.)	45.25¢	45.25¢	45.14¢	32.58¢	30.56¢
Wool tops (Boston, lb.)	#	#	\$4.70	\$2.19	\$1.51

FINANCE

90 stocks, price index (Standard & Poor's)	180.2	178.1	172.1	144.9	135.7
Medium grade corporate bond yield (Baa issues, Moody's)	3.39%	3.38%	3.31%	3.24%	3.05%
Prime commercial paper, 4-to-6 months, N. Y. City (prevailing rate)	2-2½%	2-2½%	2-2½%	14-18%	3-1%

BANKING (Millions of dollars)

Demand deposits adjusted, reporting member banks	50,163	50,214	49,042	46,928	††45,210
Total loans and investments, reporting member banks	70,108	69,863	70,122	66,534	††71,147
Commercial and agricultural loans, reporting member banks	19,186	19,127	19,206	13,420	††9,221
U. S. gov't guaranteed obligations held, reporting member banks	30,836	30,805	30,674	35,916	††49,200
Total federal reserve credit outstanding	23,724	23,789	23,813	18,192	23,883

MONTHLY FIGURES OF THE WEEK

	Latest Month	Preceding Month	Year Ago	1946 Average
Employment (in millions)	April	60.0	60.2	58.7
Unemployment (in millions)	April	1.7	2.1	3.5
Manufacturer's inventories (seasonally adjusted, in millions)	March	\$36,396	\$35,488	\$29,073
Wholesaler's inventories (seasonally adjusted, in millions)	March	\$11,384	\$11,165	\$9,129
Retailer's inventories (seasonally adjusted, in millions)	March	\$18,400	\$17,817	\$14,282

→ See page 60.

*Preliminary, week ended May 5.

††Estimate (BW—Jul. 12 '47, p16).

‡Markets closed.

§Date for 'Latest Week' on each series on request.

†Revised.

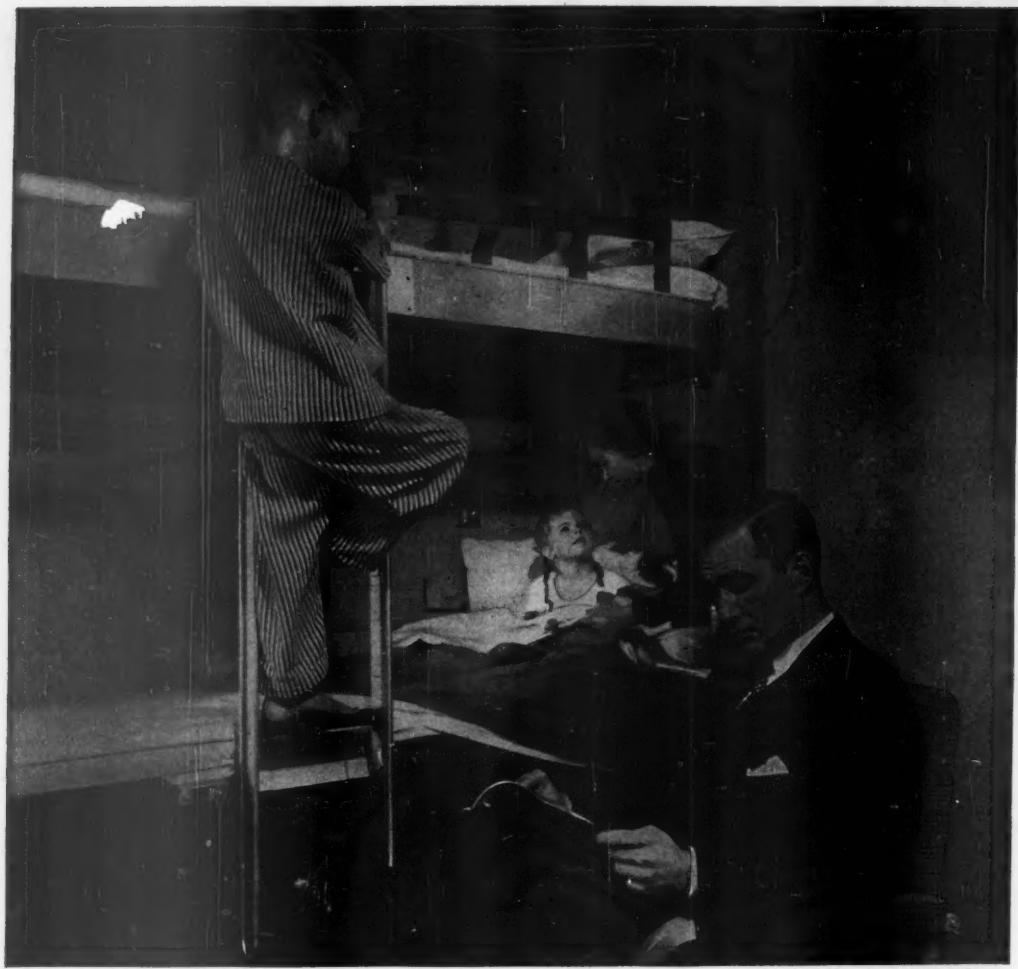


Photo courtesy of The Budd Company.

Vacation starts when you board the train

Not long ago summer traveling was something to be endured rather than enjoyed. What a difference today! Now you ride in clean, well-lighted cars that are so comfortably cool that you reach your journey's end rested and refreshed. On hundreds of today's trains, power for lighting and air-conditioning is provided by Exide Batteries.

Also, Exide Batteries crank the big diesel locomotives up ahead. They provide power for the signal lights

and circuits that guide your train safely on its way. *Where dependability is vital, you'll find Exide Batteries.*

Exide
BATTERIES

"Exide" Reg. Trade-mark U. S. Pat. Off.

Exide Batteries supply motive power for electric industrial trucks, mine locomotives and shuttle cars. Thousands are used by telephone and telegraph companies; in radio and TV broadcast; on ships and aircraft. Other thousands provide standby power for electric light and power companies, fire alarm systems, emergency lighting units. And on millions of cars, trucks, tractors and buses, they daily prove that "When it's an Exide, you start."

1888...DEPENDABLE BATTERIES FOR 63 YEARS...1951

THE ELECTRIC STORAGE BATTERY COMPANY, Philadelphia 2 • Exide Batteries of Canada, Limited, Toronto

WASHINGTON OUTLOOK

WASHINGTON
BUREAU
MAY 12, 1951



End of price control on June 30 is no more than an outside chance. Congress likes neither the ceiling law nor the way DiSalle is running it. But it's afraid to let the law die, for soaring prices in the months ahead might have repercussions in next year's elections.

The real fight will come on softening the law. Should DiSalle's wings be clipped so that he can't be so free and easy in regulating farm and factory prices? It will take Congress two to three months to make up its mind. Meantime, price confusion out of Washington will mount.

DiSalle is catching it from all sides. Farmers and manufacturers complain their ceilings are too tight. Unions, hit from the other side, complain that DiSalle isn't tough enough on prices.

Truman is backing up his wisecracking price boss. He phoned DiSalle last week when the meat row got going and told him to stand firm.

The assault on beef ceilings is making the headlines. But the fight covers much more ground than that (page 19). Beef, because of its popular appeal and the fresh memories of black markets, actually is only the rallying point.

Other meat interests—pork producers and the like—are in on it, too. They know beef-type ceilings will hit them if their prices rise.

The cotton bloc, meanwhile, wants to pry loose the ceiling on raw cotton. It blames price control for the fact that cotton prices are soft.

Businessmen are active in the fight through trade associations and by direct complaints to their congressmen.

Retailers aren't hurt much, profitwise. They get normal markups. But they are snowed under with paper work, are resentful.

Wholesalers are in about the same boat as the retailers.

The manufacturers are the hottest. Many must roll prices back under DiSalle's complex formula. And when they come to the Office of Price Stabilization for relief, they can get it only if their industry's profits are less than 85% of pre-Korea levels.

Truman's position is weak, politically. The RFC disclosures, racket investigation, and MacArthur firing have cut his prestige.

Meantime, the war fear and climbing prices that gave him his economic controls last September are now lacking. Warnings that the war danger still is great and that more inflation may come shortly aren't carrying much weight in Congress right now.

Mobilization boss Wilson is carrying the load. He's the No. 1 man on Truman's side urging Congress not only to extend the economic controls, but to tighten them up.

Congress regards Wilson highly, especially as a production expert. But there's considerable feeling that Wilson is being a good soldier in supporting some Truman proposals. For example, tight control of commodity exchanges has been an administration project since 1933. Also, the new food subsidy scheme is essentially the Brannan plan decked out in different guise. Espousal of such old Fair Deal issues tends to trim Wilson's influence.

WASHINGTON OUTLOOK

(Continued)

WASHINGTON
BUREAU
MAY 12, 1951

So Congress will write its own ticket. The prospect is that it will continue the economic controls for another year, but without the tightening Truman wants. It may even soften up the present law.

Will Truman veto a weakened law? He needs to get on the popular side of a national issue. So, if the fight in Congress drags along until the predicted second wave of inflation hits and a weak law is then voted, Truman might well decide to force a showdown.

•
The log jam on wage raises is about to break. Watch the new wage board (page 30). It has 1,100 cases that go over the 10%-since-January-1950 formula and will approve most of them. This will make a new, higher formula by midyear.

White collar salary control won't be handed over to the Treasury, as in World War II. Stabilizer Johnston will keep it under his jurisdiction, with a three-member "public" board to do the operating job.

Pay of supervisors will be handled on the same basis as executives. But "supervisor" is defined for salary-control purposes as "supervisory employees" who are not paid time-and-a-half for overtime.

•
Mergers: If you plan to take over a competitor or sell out to one, better get the deal cleared with the Federal Trade Commission. Remember Congress has voted FTC more authority over mergers that reduce competition. The House has O.K.'d \$365,000 to enforce the program in fiscal 1952.

•
The services are lobbying for more money—more than the \$60.8-billion Truman has recommended for the 12 months starting next July 1 (BW-May 5 '51, p16).

Army, Navy, and Air Force all are dissatisfied with their share of the total. So they are after their "friends" in Congress to vote more.

The Air Force has the advantage. Truman recommended \$19.8-billion for a 95-group Air Force, but the Air Force doesn't think that's enough. It's capitalizing on the fact that Congress doesn't like the idea of a big Army. It may work out so that the Air Force gets more than Truman asked, with less for Army and Navy.

•
Charges of politics in civilian defense have popped up here and there. The usual complaint is that the Administration is using this organization, which will reach into nearly every community and number millions of people, to build political strength.

Congress may have a look-see after the show here this week, when Truman and his top congressional chiefs used the big national civilian defense rally to plug Administration policies, foreign and domestic.

•
The Truman case against MacArthur, as presented to the Senate, boils down to this: The General didn't like the political nature of the Korean war and said so in violation of Washington orders. Truman was within his rights in removing him.

But Truman is moving toward the MacArthur policy, gradually (page 25). There's no thought now of giving up Formosa. An embargo on arms to Red China will be imposed, with British backing. And Manchurian bases will be bombed if the Reds get us in bad trouble in Korea.

Again the time has come **1943**
to ask your company,
and every company, to

Get in the 1951 SCRAP

FOR every ton of ingot steel produced, at least a half-ton of iron and steel scrap must have previously reached the furnaces. Steel is currently being produced at full capacity, more than 100 million ingot tons annually—and there is a developing scrap shortage of serious proportions. Just as in the early years of World War II, the steel industry asks the help of all industry to relieve the situation.

TWO IMPORTANT THINGS TO DO

1 CLEAN OUT YOUR PLANT SCRAP.

This is a job that every company can do. Old, worn-out or out-moded and replaced machinery and equipment, rails, structural parts,

etc. constitute the "heavy melting scrap" which the steel industry needs most. Clean up your plant and yards—move out this heavy scrap into the channels of use.



HURRY BACK YOUR WORKING SCRAP.

Don't let the waste of metal-working—turnings, borings, punchings, crop ends, etc.—lie around the plant a day longer than necessary. Keep it moving, back to the furnaces. And doubly important, be sure to classify and segregate your alloy steel scrap. Thus handled, it not only commands a higher price, but will help to conserve the nation's supply of critical alloys, practically all of which are highly essential.

Contributed in the National Interest by

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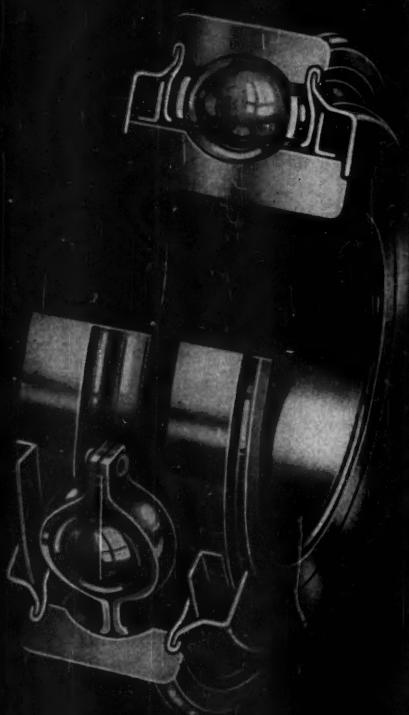
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BALL BEARINGS

NEW DEPARTURE • DIVISION OF GENERAL MOTORS • BRISTOL, CONNECTICUT



CATTLE have been reaching the stockyards in smaller numbers since DiSalle rolled back prices—key fact on . . .

Meat: The Battle Over Prices

Michael DiSalle this week is facing the prospect of a beef shortage with all the jauntiness of a man who uses it in small amounts to sprinkle on spaghetti. His jauntiness springs from something deeper: a conviction that he is right about price rollbacks and that the boss in the White House agrees.

Cattle receipts are slumping in the big midwestern markets. Cow-country congressmen are gunning for his rollback powers. The meat industry has launched an attack on the whole OPS meat package—rollback and ceiling prices both. It's the same lineup that finally broke OPA and the same issue—whether the beef business can be con-

trolled successfully. After a week's shooting, DiSalle still thinks it can be.

• **The Rules**—Briefly, the beef regulations (BW—May 5 '51, p21) require an immediate rollback of 10% in prices producers may charge packers for livestock, with additional rollbacks of 4½% each to take effect on Aug. 1 and Oct. 1. They set specific ceilings—with differentials for different areas—on all grades and cuts of meat at all levels of distribution, with Aug. 1 and Oct. 1 rollbacks. And they require all packers and slaughterers to grade beef according to Dept. of Agriculture standards.

• **Opposition**—Pointing up the opposition is a powerful combination of pack-

ers and producers, headed by the American Meat Institute. Through the complaints against DiSalle's order runs one theme: You just won't get the beef.

Most of the attacks took one of six forms. Here they are, with the answers OPS will give:

ATTACK: Farmers will strike. They will refuse to sell the beef animals they are now readying for market. Angry congressmen read DiSalle a telegram stating that cattle receipts Monday at three midwestern markets were only 45% of what had been expected. The corn belt Livestock Feeders Assn. said marketings will be held "at the lowest

possible" levels until the rollback is revised.

DEFENSE: Even the producer who paid top prices last fall for young beef cattle now approaching market condition can come out with a good profit. Take a producer who paid \$140 for a calf last fall. After the Oct. 1 rollback, he can still sell the animal at a \$35 to \$40 profit, based on Dept. of Agriculture cost estimates. Will he pass up a chance to sell his output, pay off the loan many feeders carry, and put money in the bank? If he doesn't sell and take his profit, what will he do with the animals?

COMMENT: One thing that may upset DiSalle's calculation is the farmers' hope that Congress will strip him of his power to roll back prices. By holding off marketing between now and June 30, when DiSalle's present authority expires, producers will risk little. And they may convince an already sympathetic Congress that DiSalle should be deprived of the rollback device.

ATTACK: Farmers will refuse to produce beef for the next year. Why should a farmer buy young cattle now and plan on fattening them for sale this fall when he faces three successive rollbacks in price?

DEFENSE: For the big feed-lot operations of the corn belt, the rollback period will be over before the normal restocking period comes this fall. By waiting until the last price reduction on Oct. 1, producers can get their young stock at rollback prices and feed them at a profit. For the purchase of cattle for grass-fattening this spring and summer, producers get in at current prices and sell at a profit before the Aug. 1 price reduction.

COMMENT: The big annual movement of Texas cattle to the Osage pasture area of Kansas is taking place now at a normal rate—a sign to OPS cattle experts that the price regulations aren't going to halt grazing. The key to the OPS defense is its argument that when the third rollback has taken its cut cattle will still be selling at 120% of parity.

ATTACK: The first big rollback of 10%, in effect immediately, was made for the benefit of the packers, wholesalers, and retailers. (This is an argument heard only from producer groups and supported by some congressmen.)

DEFENSE: It was necessary to restore margins to packers and the meat trade; the price freeze of January left them operating at a loss. The January order froze every price in the meat business, except what was paid to the farmer. Now the farmer is getting his. True, the consumer will get very little of the first cut. But he will get most of the two subsequent cuts of 4½% each.

ATTACK: Even if producers raise the beef, black market slaughterers will get it. Look what happened under OPA.

DEFENSE: Most so-called black market meat last time was produced in licensed slaughterhouses, many of them new in the business. This time we are not going to issue new slaughtering licenses, so the black market will be easier to control.

ATTACK: The job of grading beef will swamp the grading service and breakdown controls. Normally, about 250 graders pass on about 25% of the beef.

DEFENSE: USDA will have to increase its grading force to about 550 and has already hired most of them.

ATTACK: The ceiling prices will lead to rationing. Suppose a butcher can get or make just 500 lbs. of hamburger a week, which he can sell at 69¢ per lb. He sells out by Saturday night. The rollback will lower the price to 57¢. At that price he'll sell out before Saturday night. Those left without hamburger will insist on rationing.

DEFENSE: There isn't any. Many OPS beef experts agree this is just what will happen.

Fewer Cars

Detroit expects third-quarter steel use to be cut to 70% of base period. Output, already tapering off, will drop further.

Automobile production has already begun to slow down under the pressure of government regulation. In the months ahead, it will drop off even more. Car makers, now limited to 80% of their steel use in the base period, will be cut to 75% on June 1 and expect to be reduced to 70% in the third quarter.

Precisely what these ratios will mean in terms of assembled units is something no one can estimate. One reason is that the base period—the average of the first six months of 1950—is being modified by hardship cases. Chrysler, for example, was on strike during most of the first quarter in 1950, and allowances were made for the tieup. Other companies have been able to get special consideration because they have introduced new lines.

• **Ahead to Date**—So far in 1950, industry output has come to about 2.1-million cars in U.S. plants, compared with 1.8-million for the first four months last year. The gain has come almost entirely from Chrysler. May schedules are generally quite firm, with an outlook for roughly 508,000 completions—approximately the same as in April.

• **Cutbacks**—Meanwhile, there have been schedule reductions around the industry, notably at Kaiser-Frazer and Hudson. Detroit feels these have been due to a balancing of demand rather than to shortages of materials.

• **Truck Output**—Companies making both cars and trucks are in somewhat better position than the others. Truck output is being held on high ground. At midyear, heavy-weighted classifications will probably be permitted to exceed base-period volume by 20%; medium jobs can come up to the full base-period amounts. Lightweight trucks, however, will likely be shaved to 70% of their base-period volume, matching the passenger car cut.

• **Added Up**—As a result of these varied quotas, the truck industry in the year starting July 1 will probably be building between 85% and 90% of its base-period output.

Truck people, meanwhile, are pressing for an even better position; they say that essential transportation requirements call for 1,350,000 completions in the 12 months starting July 1—which would about equal the best the assembly lines have ever done over a sustained period.

Revolutionizing Radio

With network broadcasting changing character, CBS wants to buy ABC and Hytron, make itself a baby RCA.

Whenever Frank Stanton, president of the Columbia Broadcasting System, looks at his balance sheets he gets the fidgets. Under the item "net properties," he sees a figure of \$17-million. To Stanton that's far too low. In a business as wild as broadcasting, Stanton would feel safer with more bricks and mortar for backstop.

• **End of the Rainbow**—This week Stanton's dream of a bigger empire with more tangible property might well be coming true. But it took a revolution in the broadcasting business—a revolution that will continue for months, maybe years—to make that possible.

If all the deals now boiling come off as planned, here's what will soon happen:

- CBS will get control of Hytron Radio & Electronics Corp. and thus edge itself into the electronics manufacturing business.

- CBS will buy up the American Broadcasting Co. network—which reportedly is for sale (BW-Apr. 7'51, p 122)—for around \$26-million.

- Out of ABC as now constituted, CBS will absorb three key television stations, some production facilities, and some top executives.

- Then CBS will sell off the remainder of ABC, hoping to recoup as much as \$20-million thereby.

- **Revolution**—The revolution that put CBS into a buying mood and ABC into a selling mood is the rapidly changing character of network radio broadcasting.

Historically, a radio network consists of a few stations owned by the network and a vast sheaf of paper. The government limits outright network ownership of outlets to seven in radio broadcasting and five in TV. So to blanket the nation, the network has to make hundreds of contracts with stations that belong to other people.

Then the network sends its salesmen up and down all the Madison Avenues in America to sell time to sponsors. Part of the revenue thus drummed up goes into the network's pocket, part goes to the "affiliates"—the stations it doesn't own.

- **Paper Mountain**—When business is good, the networks don't worry too much over the fact that a phone call from, say, Procter & Gamble can blow up millions of dollars of business or the resignation of a disgruntled affiliate in,



FRANK STANTON, president of CBS.

say, Hartford can wipe out coverage in Connecticut and environs. The mountain of paper looks solid.

But not so today.

The big advertisers are complaining that all advertising media have jacked their rates up to the point where something has to give. That something is network radio. For a relative handful of sponsors control the bulk of network programs and can put the heat on the networks much more easily than on, say, the newspapers.

The networks have had to capitulate and are now cutting radio rates (BW-Apr. 28'51, p 84). This, in turn, has made the affiliates hopping mad.

- **In the Box**—What to do? The networks have taken a sharp look at their ledgers to spot strong and weak points. In general, they have found that the network radio business itself is getting pretty skimpy as a moneymaker.

On the other hand, the profit from the stations the networks own outright is very good.

- **Conclusions**—To CBS this adds up to one big conclusion: Buy more income-producing property. That would include TV stations (which will be the backbone of tomorrow's broadcasting) and diversified holdings like Hytron. (Hytron's net in 1949 was \$565,000; last year, \$3,349,000).

Conversely, ABC seemingly feels that station ownership is outweighed by the shaky situation in radio advertising and the development costs TV will still burn up. Here was the meeting ground for a deal.

If the CBS-ABC transaction comes off, CBS will instantaneously get—for a net outlay of around \$6-million—TV stations in Detroit, Chicago, and San

Francisco. It will also get some good program production facilities on the West Coast. And it probably will add Robert E. Kitner, ABC president, to its top brass (CBS' high-echelon operations are currently in the hands of William S. Paley, chairman, and Stanton).

Meantime, CBS would have to sell the radio stations ABC owns because CBS already is up to the limit in that division. It would also have to sell two ABC TV stations—in New York and Los Angeles—to avoid illegal duplication.

- **Rush**—CBS' frenzy to buy up TV properties results from the fact that you can't do everything at once. A couple of years back, CBS' two biggest competitors—ABC and the National Broadcasting Co.—energetically started putting up TV stations. But CBS decided on another strategy. It sunk its money into talent—signing up stars like Jack Benny to long-term contracts. CBS figured this way: The names will lure radio revenue now and TV revenue later.

Whether the transaction actually comes off or not depends primarily, of course, on whether the Federal Communications Commission O. K.'s it. But the trade feels there won't be much Washington trouble so long as CBS can prove it will give NBC a better run for its money in TV; and so long as the disposal of those pieces of ABC that CBS doesn't want will keep ABC a going, competitive entity.

Just who might buy the pieces is causing endless trade speculation. Some of the rumored buyers include International Telephone & Telegraph; the Yankee or Dom Lee Networks; Walter Annenberg, publisher of the Philadelphia Inquirer, which already owns WFIL-AM and TV; and the Fort Industry Co., radio and TV operator.

- **Manufacturing**—Meantime, acquisition of Hytron will give CBS a foot in electronic manufacturing. Hytron makes tubes, wire recorders, radio-phonograph combinations, and—through a subsidiary, Air King Products Co., Inc.—TV and radio sets for such mass distributors as Sears, Roebuck. Net sales last year were \$41-million, net property value was \$1.6-million. If stockholders approve, CBS will get the company by giving Hytron shareholders 31 shares of CBS for each 100 Hytron shares.

In all, CBS would wind up owning: A full quota of radio stations; a full quota of TV stations; a phonograph record company; an electronics company; long-term contracts with top radio and TV stars; patent rights in radio and color TV; and a fair assortment of real property.

"It will still be small compared to RCA," one trade observer said this week, "but at least it will look more like a miniature of RCA."

Gangland's Grip on Business

Kefauver report spotlights the racketeers' invasion of legitimate fields. They provide needed capital, in exchange get a "front" to hide the profits of crime from the tax collector.

There's a chance that the man who is ready to finance your expansion plans is firmly rooted in gangdom. That's the message of the Senate's Kefauver committee to the country's businessmen.

"The extent to which gangsters and racketeers continue to pursue their vicious careers and invest spoils of their illegitimate activity in legitimate enterprises," the committee's report finds, "is fraught with danger to our country."

• **Penetration**—During the 1920's and 1930's, hoodlum penetration of labor unions threatened to disrupt entire industries. Now the threat is at the management end, the committee says, with hoodlums holding positions of power in at least 50 business fields. Here's how it happens:

Legitimate businessmen need cash for capital investments; gangsters have it to offer. Over the past decade, while business reserves have been increasingly sucked away in taxes, gangdom's cash-on-hand has skyrocketed. Its income from illegal gambling is now set at \$20-billion a year, or more. Taxes get little of it.

Moreover, gangdom needs a legitimate "front." Tax evasion remains the key to catching major criminals. In their apprentice days, gangsters file low returns. After they are in the big money, they find it difficult to account for their new status to the tax collector. So they buy into legitimate business. The new \$100,000 home, the new limousine, etc., gangsters explain, come out of legitimate profits.

• **Two-Way**—The net result of all this, according to the Kefauver committee, is that legitimate business has embraced gangsters—and vice versa.

The gangster seeks enterprises that will give his ruthlessness full play. He likes:

- Big turnover industries, like the distributive trades, that make tax-dodging easy.

- Industries with a chance of profits from misrepresentation, such as drugs, advertising.

- Businesses associated with illegal gambling—hotels, restaurants, night clubs, bars, the manufacture of gambling equipment (with utensils and other related manufacturing as a sideline), communications (which transmit gambling information).

- Businesses that can profit from gang political influence. Real estate, etc., and liquor are the two best examples.

- Industries that will promote political influence, such as newspapers, news services, radio stations.

The committee says it would take volumes to document the list of gangsters with fingers in the legitimate business pie. And it admits that it has probably uncovered only a small segment.

The report spotlights these as examples, though it admits that some of its evidence would not stand up in court:

• **Liquor industry**. The top-notch companies, such as Schenley and Seagram, grant exclusive area franchises to the country's top-notch hoodlums. They say it's the government's business to determine whether an individual should be in jail.

• **Automobile and trucking**. Although Harry Bennett, the ex-chief of staff to Henry Ford, was removed from office six years ago, two gangster protégés of Bennett's "remain in lucrative relationships to the Ford Motor Co.," the committee says. They are Anthony D'Anna, whose E&L Transport, Inc., of Michigan and Indiana, gets virtually all the haul of Fords produced at the Dearborn and Highland Park plants, and Joe Adonis, top New York gangster, who is a major figure in Automotive Conveying Co., a company that has an exclusive franchise for Ford distributing to eastern points. (Ford has publicly announced its intention of ridding itself of the Adonis connection.)

• **Transportation**. In Minneapolis-St. Paul, the Twin City Rapid Transit Co. recently missed by a hairsbreadth being controlled by gangsters, according to the committee. At the last minute, the company's president, Charles Green, concluded that company lawyer and director Fred Osanna was "associating" with mobsters and successfully fought giving control to his faction.

In Cleveland, the Yellow Cab Co. is operated by Arthur "Mickey" McBride, whom the Kefauver report calls a crony and business associate of notorious gangsters.

• **Steel**. Gangdom's "Longie" Zwillman is a major manipulator in this field, controlling the E&W Trading Co. of Newark and the A. M. Byers Co. of Pittsburgh.

• **Communications**. A very "substantial stockholder" in Western Union is William Molansky, a prominent figure in the gambling world, "which depends so heavily on the information services of the company."



GIANT HULETTS dip their beaks like birds into the holds of ore ships. Each dip takes out a 17-ton

Ore Unloaders

The iron ore shipping season on the Great Lakes started two weeks late this year, but it started with a bang.

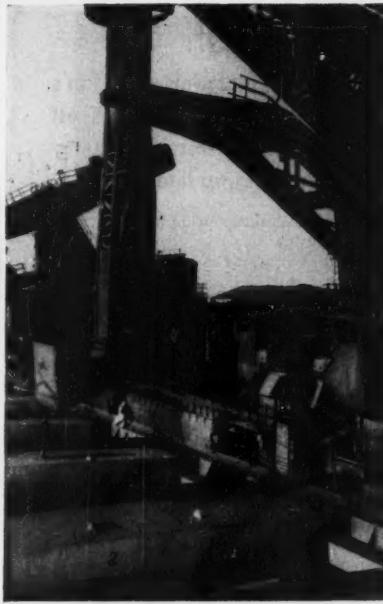
By the end of April, 6.2-million gross tons of ore had been delivered to lake ports. That's 5.2-million more than April deliveries last year, when weather conditions were even worse.

• **Optimism**—The swift April deliveries have brought a rush of optimism to ore shippers and their customers in the iron and steel industry. A few weeks ago, experienced shippers guessed that 1951 deliveries would be around 86-million or 87-million tons—well under the 90-million tons needed to keep the blast furnaces running at their present pace. Now they think there is a good chance of hitting the target—just by water shipment and without counting the ore that moves by rail.

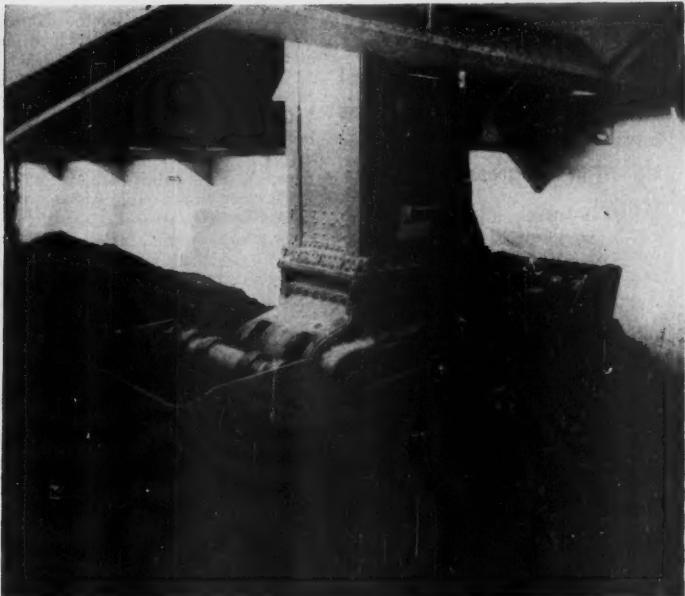
Total water shipments last year were 77.2-million tons, plus 3.9-million tons by rail. The shippers are off to a far better start this time.

Quite a few factors are operating to stir this optimism, apart from the earlier opening of the lakes. Canadian-owned ore boats are being allowed to move ore between U.S. ports right from the start of the season. Last year this permission wasn't granted until mid-summer.

Shippers have also worked out some



bite, deposits it in railroad freight cars. The Great Lakes iron ore shipping season is on.



OPERATOR rides the Hulett scoop, directing all movements of the huge unloaders, which move sideways, backward and forward, up and down. Here the scoop takes a bite.

Busy Again

short cuts to conserve boats. For instance, ore from Wisconsin's Gogebic Range has historically been hauled by rail the short distance from the mines to the port of Ashland. Now the Gogebic ores make the longer rail trip to Escanaba.

The result is a shorter water haul, which gives a 25% increase in boat capacity. The longer rail trip makes the new route a few cents a ton more expensive, but that's of little consequence, with the blast furnaces working overtime.

• **Rail Haul**—Hopes of a 90-million-ton water-shipment season are based on the upper lakes' not freezing before December. But shippers are coppering their bets against an earlier freeze; they're planning to continue hauling ore by rail all summer. The slump in coal has enabled the railroads to put 3,000 cars in the iron ore pool. The opinion in some quarters is that this will mean doubling last year's rail shipment figures.

Meanwhile, the ore shipping picture for 1952 has improved. Contracts have been let for 16 new, large and fast carriers, and the Canadians are adding to their bulk fleet. It is hoped that these boats will be ready to meet increased demand for ore as new blast furnaces come into operation.



ORE CARS roll to the dockside next to the ship. Then the battery of five Huletts gets to work; they can unload from any of the ship's 18 hatches onto any track.

Defense Housing

There's none to speak of yet because few defense areas have been declared and bill is stalled in Congress.

Back in January, it looked as if builders all over the U.S. would be busy by spring breaking ground for defense housing. It seemed clear then that new and expanded defense plants would soon bring a need for new homes for their workers.

• **Incentives**—To prepare for this, the Administration introduced identical defense-housing bills into both houses of Congress. Basically, they would provide: (1) a \$3-billion boost in mortgage insurance authorization for all Federal Housing Administration programs; (2) a mortgage loan of 90% of construction cost for defense housing in any certified area that needed it; and (3) authority to build government housing in areas where such special incentives didn't induce private builders to act.

Washington observers were certain that this bill would go through without a hitch (BW-Jan.20'51,p30). It didn't. In March the House rejected it and sent it back to the banking committee, where it has languished ever since. Meanwhile, the Senate passed an amended version of the bill. Thus it appears that if and when it does get through both houses, the bill will have a lot fewer features to attract private builders' interest than its original. And most builders need some urging to go into defense housing—it doesn't pay so well as normal construction.

• **Standstill**—As a result of this stalling around, defense housing this week is almost in the same spot it was last January. The only bait that federal housing officials can hold out to private contractors is relaxed credit terms. But it's the kind of bait that only a fish that is a lot hungrier than most U.S. builders are today would make a grab for.

That's because mortgage money has practically dried up; financing for both rental and for-sale housing is hard to come by. Dealers say that insurance companies have pulled out of the business of buying secondary mortgage paper (page 135). The reason is that government bonds are selling below par, and the insurance companies are no longer willing to sell those bonds to get money to finance housing.

• **Money Trouble**—Many builders, in fact, think that this unpegging of government bonds has done more to restrict building than credit curbs have. Said one in the midwest:

"You can't build under current con-

ditions. You have to lay too damned much money on the line. There just aren't many builders who can build a \$15,000 building and put \$7,500 of their own money into it."

Government money seems to be the only financial move that will get builders into defense housing. But they throw up their hands in horror at the words "government subsidy."

• **Few Defense Areas**—On top of these financial drawbacks, builders face another block in their path—the fact that the government has been so slow to declare various parts of the country as defense areas. Government officials see a need for privately built housing in about 100 such areas. Yet so far, the Critical Areas Committee of Defense Production Administration has designated only six such localities.

These critical areas are: Savannah River, S. C.; Paducah, Ky.; Idaho Falls, Idaho (all serving atomic-energy plants); San Diego, Calif.; Colorado Springs (serving military installations), and Corona, Calif. (serving the guided-missiles lab of the National Bureau of Standards). For these areas, the housing authorities have relaxed credit restrictions for some 8,000 homes. And yet they want 125,000 units built or under way in all 100 areas by a year from now.

• **Planning Stage**—Since it takes at least 90 days to get construction under way, housing in most of these areas is no more than in the planning stage.

And builders are taking on the jobs more or less reluctantly—mainly because they don't think relaxed credit restrictions are enough of a guarantee against possible financial losses. Also, they don't like the slow tempo of the defense program.

For example, one St. Louis builder went over to Paducah, figuring it would have a juicy defense-housing market he could cut in on. He went home disgusted, having found that the need for permanent homes for atomic-energy-plant employees is still a couple of years away because the plant won't be operating till then.

• **Need for Aid**—On the whole, builders are waiting for Congress to pass some legislation that makes it both definite and attractive enough for builders to go ahead. If that legislation goes through and looks like money in the bank to them, they'll build. One Columbus (Ohio) builder, for example, plans to put up 285 rental units if legislation passes. If it doesn't go through, he'll build 12—he can't afford the financing to do more.

One Buffalo builder summed up the general feeling this way: "If the government will give private industry a break on low-rent housing, builders might consider going into it. But the profit motive must exist. No builder is going to operate strictly on altruistic motives."

More Stuff

Basic materials get lion's share of first \$4.7-billion of fast writeoff certificates. Processing plants coming up lately.

In industrial expansion it's first things first.

The Defense Production Authority has just put together a list of projects approved for fast tax writeoffs. And of the \$4.7-billion approved to the middle of April, 79% goes for enlargement of basic-materials capacity.

• **Percentages**—The percentage of the project getting the quick writeoff depends on the industry. For instance, refractories are allowed rapid amortization on 84% of the cost of all the new plant and equipment certified by DPA. At the other end, the chemical industry gets an average of 52% O.K.'d for faster depreciation rates.

All the certificates granted by DPA are supposed to go to build up defense and defense-supporting industries.

Of course, when that's applied to basic materials it can mean most anything. Defense uses every kind of material—and building up "defense industries" at the raw and unfinished material level also puts more muscle on the civilian output potential.

• **Dual Purpose**—Hence, the \$1.6-billion going to the steel industry (one-third of the entire amount certified) is not useful solely to defense. It helps the entire economy—which explains DPA's philosophy of only giving fractional percentage writeoffs.

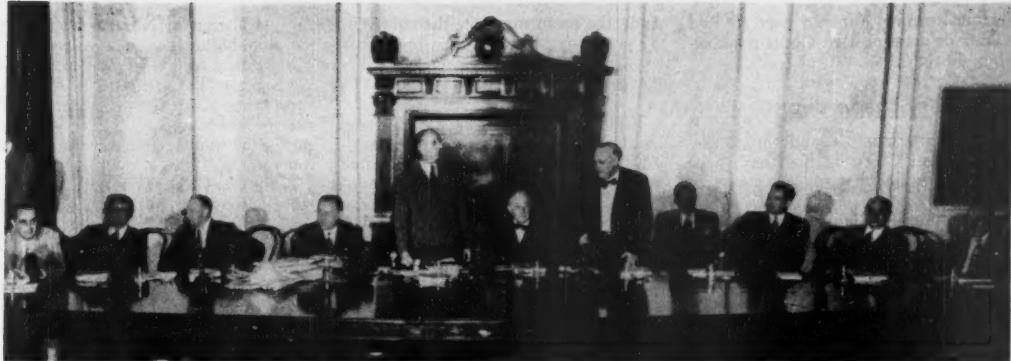
Here's the breakdown on the projects granted certificates so far:

	Millions of \$'s	% of total
Basic materials—production	2,223	47
Basic materials—processing	1,494	32
Finished products	506	11
Transportation and storage	458	10
Miscellaneous	28	..
Total	4,709	100

Although basic materials are still getting the lion's share of the certificates, the accent is switching from production to processing. Thus DPA notes that while iron and steel accounted for 83% of the approvals at the end of January the figure is now about 40%.

In the processing of materials, metals shapes and forgings are first in line, with \$480-million worth of expansion (covered by certificates). Running a close second is the fast-stepping chemical industry, with \$441-million.

Finished products are only a small part of the total—and even that is mostly aircraft. Aircraft, electrical and electronics, and arms plant expansion make up three-quarters of the total approved by DPA.



THE JURY: Joint congressional committee asks the questions that may determine the U.S.' course for months to come.



FOR THE DEFENSE: Secretary Marshall finds some flaws in MacArthur's formula.



FOR THE OFFENSE: Gen. MacArthur (seated, right) submits to camera barrage during recess. Some of his answers brought as little comfort to Republicans as to Democrats.

On Trial: Big Men and Big Issues

Are you for MacArthur or Truman? The question is burning the country up. Primarily, what Mr. and Mrs. U.S.A. want to know is how to end the Korean war without triggering World War III. But the scorching heat of the controversy is turning some light on a barrelful of other questions. The stakes are fantastically big and fantastically varied. They range from who will sit in the White House in 1952 to what 18-year-old boys will be doing that year.

Here are some of the important angles that have been obscured by the sheer mass of MacArthur's testimony:

I. Ending The War

MacArthur has a formula for a speedy windup of the Korean war. Marshall says the formula is no good.

MacArthur's famous four points—the ones he claimed were shared by "our own Joint Chiefs of Staff"—are as follows:

- (1) Intensification of our economic blockade against China.
- (2) Imposition of a naval blockade against the China coast.
- (3) Removal of restrictions on air reconnaissance of China's coastal area and of Manchuria.
- (4) Removal of restrictions on the forces of the Republic of China on Formosa; with logistical support to contribute to their effective operations against the common enemy."

MacArthur declared he favored bombing the Chinese if, following an ultimatum, they did not cease their aggression in Korea.

He stated his belief that bombing

Chinese transportation and other key points would bring China to terms and that it would not bring Soviet Russia into the war.

• **Marshall Says No**—The Defense Secretary said this week both he and the Joint Chiefs of Staff believed just the contrary. He held:

- (1) There is no likelihood that MacArthur's policy would even drive the Chinese out of North Korean territory, let alone succeed in bringing them to their knees.

- (2) It would almost certainly lose us our allies; and

- (3) This policy would certainly risk Soviet Russian intervention and World War III.

The Administration's solution: Chew up Chinese troops in Korea until they come to terms—provided terms don't

include turning Formosa over to Red China or granting Red China membership in the U.N.

II. Military Leadership

Up to now, the plans and procedures of the Joint Chiefs of Staff have been kept strictly under wraps. This may be changed.

The Washington grapevine has always had it that the Chiefs of Staff have the civilian secretaries "in their pocket"—swing more weight, collectively, than Gen. Marshall himself.

• **Direction**—Gen. Bradley's speech—on the day following MacArthur's dismissal—suggested the possibility of something else, of "political direction" of this purely military group. Then came MacArthur's flat statement that the Joint Chiefs had fully supported every point of his recommendations for ending the Korean war.

This brought new light to Republican eyes. The GOP visualized a blundering President overruling his top military advisers or perhaps Fair Deal pressure to warp the Joint Chiefs to the Truman-Acheson policies.

• **Marshall Says No**—At midweek it appeared that Marshall's initial counterattack had landed solidly. There was a clear indication that MacArthur had told the senators only a part of the story. The Joint Chiefs will prove to Congress that there has been no political finagling.

• **Question**—But Congress will turn their operations inside out. It will insist on knowing more about their semi-mysterious goings-on than it ever has known before.

III. Draft Extension and UMT

The selective service extension bill is likely to feel the MacArthur influence. The House and Senate each have passed draft bills with differing universal military training provisions written in.

Sen. Lyndon Johnson, proponent of UMT, asked MacArthur point-blank whether "some system of universal training" shouldn't be invoked as a preparedness measure.

• **Noncommittal**—MacArthur wouldn't be pinned down on this at all. His answer was:

"Whether universal military training accomplishes [maximum preparedness] would have to be pretty carefully considered by me. . . . I believe the greatest possible consideration has got to be given to the demands of industry. . . . I would wait and get through with the emergency that faces us now, and then on what has resulted and what exists then, I would sum up the facts and make my decision. . . ."

The House bill already would limit itself to setting up a commission to

study the problem. Now the conferees are pretty sure to follow this line.

IV. Air Power—Up or Down

Right after MacArthur's electrifying address to Congress, air power enthusiasts were taking off for the wild blue yonder. His belief that bombing of China would end the Korean war looked like the gospel according to Billy Mitchell.

Forthwith, out came their proposals for an Air Force of 150 groups—a considerable step up from the Administration's target of 95 groups.

• **No Support**—But MacArthur dashed their hopes. He declined to give them a smidgen of support.

In answer to a query from Sen. Lodge, who had plugged the program on the Senate floor just a day or so before, MacArthur said, "I think [our Air Force] is big enough to handle the situation in the Far East without serious detriment to any other program we have."

Neither would he support the Hoover-Taft kind of policy—that we hold down our ground forces in numbers and keep them close to home while using our Air Force and Navy to protect our interests and hold our allies abroad.

"I believe," he said, "that it is the gravest possible mistake to try to draw the lines of demarcation between ground troops, air troops, and navy troops. They are an integrated team."

V. Our Military Buildup

MacArthur raised a basic question about the three-year buildup of our military and economic strength—the program that Truman, Wilson, and Marshall have adopted. Wilson has said the U.S. will be ready by the end of 1952 to fight a war "off our production lines."

MacArthur said pointedly: "You assume, of course . . . that relatively your strength is going up much more than the enemy's. That is a doubtful assumption. . . . He may build faster than we do."

If his point is established, it could reverse the current drift, which has been toward a slackening of our buildup and a fight against controls.

VI. Democrats Hit Bottom

The Democrats in Congress generally feel they're taking the rap for another of Truman's bunglings. They admit the President had a point, but they wish he had found some other way out. No doubt about it, MacArthur has made Truman the bottom man on the totem pole.

True, the Democrats in the Senate stood solidly behind Truman when Sen. Wherry tried to force open hearings;

only McCarran of Nevada deserted to the Republicans.

But only a handful of Democrats will risk going to the mat with MacArthur. Everything about him tells them: Beware of this man; handle him with kid gloves; be photographed with him if you can.

If the Joint Chiefs of Staff do the job that is expected from them, more Democrats will take heart. Meanwhile, all they can hope is that MacArthur himself, in his promised speeches around the country, might overreach himself and lose his appeal and drawing power.

VII. Republicans Ride High

As Truman's end of the political seesaw hit bottom, the Republican end hit new postwar heights.

MacArthur is plainly anti-Truman. On this one issue the GOP gained in every precinct throughout the country.

At the same time, MacArthur is something of a complicating element. To a Republican echelon that's already studded with competing and divergent leadership—to Taft, Dewey, Hoover, Eisenhower—you now have to add MacArthur.

• **On His Own**—MacArthur won't go along with Hoover's "Western Hemisphere" proposals that set off the "great debate" on troops to Europe. He won't go along with Taft's proposals on foreign policy, on troop limitation, on cutting the military budget. He won't go along with Wherry's policy of relying on air power to protect our interests abroad.

In fact, the politicians in both parties find this their most pertinent conclusion: MacArthur is a man with a greater popular following right now than any other figure in the country. And he is completely his own man.

This makes the Republican contenders for the nomination very uneasy. No one of them is sure yet whether the MacArthur punch will help or hurt him.

VIII. "Go It Alone"

Truman has picked the softest spot in MacArthur's shining armor—the general's refusal to take a position from a global viewpoint, his advice to "go it alone" in risking a war with China and Russia.

Anti-British and anti-U.N. feeling runs high as the cost of Korea in blood and money keeps mounting. But only a few votes can be gathered in Congress for deliberately junking all our moral and monetary commitments in European aid, the North Atlantic Pact, the United Nations.

The Democrats can make the most of the fact that "go it alone" means risking the loss of allies whom we need about as much as they need us.



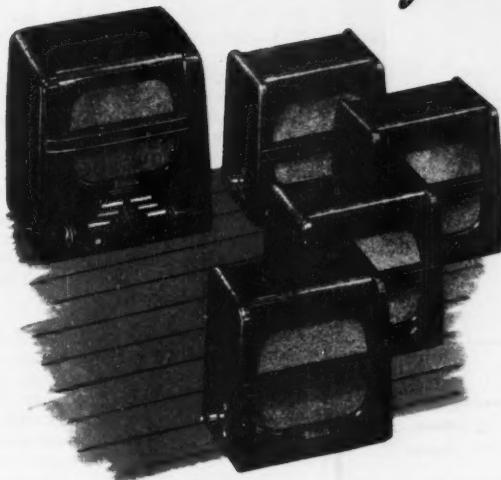
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The Warner brothers have decided to quit the movie industry. A syndicate headed by San Francisco real estate operator Louis Lurie is now dickering to buy their stock for \$25-million. One reason for the sale: Under an antitrust splitup, the brothers would have to get out of half the business—either producing or exhibiting—anyway.

Quick tax writeoffs were approved for another \$291-million worth of plant expansion. Biggest certificate went to Alcoa, allowing it five-year writeoff for 80% of a \$34-million expansion at Port Lavaca, Tex. As of May 3, total amortization grants were over \$5-billion.

Pipeline rates for companies that carry only their own products in their own pipelines aren't subject to federal regulation, the Supreme Court said. However, the court ruled that Champlin Refining Co., the company involved, could be compelled to file certain reports with Interstate Commerce Commission.

Sewell Avery quit as chairman of U.S. Gypsum Co. He told stockholders he is "no longer a candidate" for the post. Avery was president of Gypsum from 1905 to 1937, has been chairman since. C. H. Shaver, former vice-president and treasurer, was elected chairman, continues also as treasurer.

The oil flareup in Iran started major U.S. producers on a plan for dividing up supplies among the democracies in the event Middle East sources are cut off. Idea has the blessing of Petroleum Administration for Defense, but Justice Dept. might be a stumbling block. It would have to waive antitrust laws for the scheme to work.

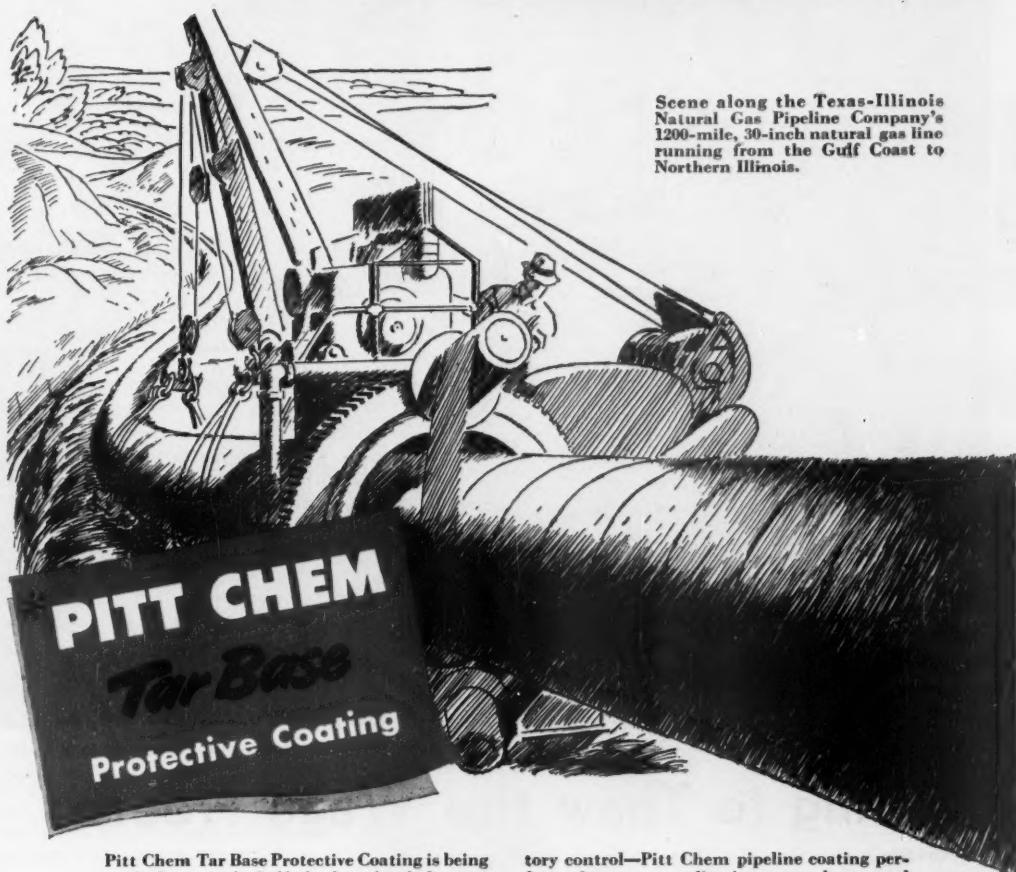
A \$100-million expansion was announced by Dow Chemical for the year starting June 1. More than half the amount will be poured into its Texas Division at Freeport.

A clearinghouse for defense contracts was started in Philadelphia. Aims of the center: Coordinate production capacity in the area; help small manufacturers get credit; pass on information on defense procurement. Sponsoring organizations are the Chamber of Commerce and the Philadelphia Inquirer.

Transatlantic air-coach flights may be approved at the Bermuda meeting of the International Air Transport Assn. The Civil Aeronautics Board is now supposed to be ready to accept the idea for U.S. carriers.

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PUBLIC MEMBERS of the new WSB will have the deciding voice if industry and labor members split over how far to go after . . .

Starting to Thaw the Wage Freeze

As the new Wage Stabilization Board got down to business this week, there was no question of whether or not to raise wage ceilings; it was merely a matter of how much.

The new 18-member board has before it more than 1,100 voluntary applications for approval of wage increases. The applications had piled up since the old nine-member WSB issued its first regulations in mid-February, then broke up over Labor's walkout.

• **To Curb Increases**—As reconstituted, the board has authority to handle defense disputes at the joint request of union and employer or when the disputes are certified to the board by President Truman (BW—May 5, p34). But the immediate problem is to keep voluntary wage raises within bounds.

To do this, the board got set this week for quick action on voluntary wage raise applications. Meanwhile, it discussed ways of handling labor disputes effectively and quickly when they arise.

• **Revised Ceiling Pattern**—The board hopes to establish a clear pattern on voluntary wage increases before the wage sections of the National Defense Act expire June 30. Labor representatives on WSB, particularly, want the ceiling on raises opened up before then—to get in ahead of a firmer freeze when a new act is drafted.

It's certain that the WSB will revise the wage ceiling (10% above Jan. 15, 1950) to compensate for increased living costs since the 10% figure was set earlier this year. (The new ceiling may go as high as 15%).

Similarly, it's pretty sure that WSB will approve "increased productivity" raises, such as General Motors' annual 4¢-an-hour improvement factor raise due June 1. And it's almost certain that WSB will sanction c-of-l "escalator" raises, no matter when negotiated, at least until the expiration date of the National Defense Act. Obviously, once allowed, the c-of-l raises and productivity increases will be hard to take away.

Further, WSB probably will go along with Economic Stabilizer Eric Johnston's proposal to exempt the cost of pension and health and welfare plans from the ceiling on raises.

• **"Inequity" Raises**—But even more important, WSB will take up union demands for "inequity" raises. Packing-house workers, shipyard workers, and

textile workers, among others, argue that they shouldn't be considered on the same raise basis as workers in auto and steel industries.

Procedure—George W. Taylor, chairman of the new WSB, has divided pending cases into groups in order to expedite their disposition. Where it can be done, he plans for WSB to issue a decision in a case that will permit quick disposal of all others by administrative rulings.

The pending applications fell into these categories:

Intraplant, intracompany, or interplant inequities	450
Adjustments for individual workers.....	89
Deferred increases	77
Construction jobs	73
New plants	57
Abnormal base period.....	55
Fringes	48
Piece rates and incentive plans.....	30
Rare and unusual cases involving manpower problems	23
Wage progression plans	19
Cost-of-living escalators	11
Substandard wages	3
Miscellaneous	182

Salaries, Too—One of the first things the board did was set up a Salary Stabilization Board to handle salaries of nonunion executives, professional and administrative employees, and outside salesmen who are exempt from the wage-hour law. It will operate like the WSB and will be made up of three all-public members, with no representation from labor or industry. Taylor will sit on it as an extra, non-voting member, to make sure that it doesn't deviate from WSB rules. The Treasury Dept. handled salary stabilization during World War II.

Lineup—The nine new WSB members are:

Public: Nathan P. Feinsinger, professor of law at the University of Wisconsin and a former member of the World War II War Labor Board; William M. Hepburn, Dean of Emory University Law School, Atlanta, and former member of the Atlanta regional WLB; and Frederick H. Bullen, executive secretary of the New York State Mediation Board and former chairman of the old Cleveland regional WLB.

Industry: Milton M. Olander, Director of Industrial Relations of the Owens-Illinois Glass Co., Toledo; Alexander R. Heron, Director of Industrial Relations of the Crown Zellerbach Corp., San Francisco; and Richard P. Doherty, Director of Employer-Employee Relations of the National Assn. of Broadcasters, Washington.

Labor: Joseph A. Beirne, president of the Communications Workers (CIO); William C. Birthright, president of the Barbers Union (AFL); and John W. Livingston, United Auto Workers (CIO).



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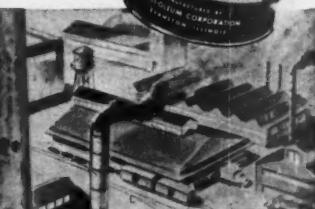


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Apprentice Training: Still Not Enough

Normal trade loss of journeymen outnumbers crop of new skilled workers. And demand for them is growing.

Just when U.S. industry is clamoring for more skilled workers (BW-Apr. 28'51, p.19), it turns out that normal trade losses are running ahead of the training of skilled journeymen.

It's not that the training programs haven't been stepped up; they have been more than doubled in the last 10 years. There are some 215,000 registered trainees today, and probably another 100,000 not listed.

But government and industry are agreed that it still isn't enough. In a work force consisting of about 8-million skilled journeymen, normal losses are bigger than the present program can replace.

• **Employer Complaint**—Many employers have been kicking about the shortage of apprentices for a long time. Recently the National Tool & Die Manufacturers Assn. warned that the low rate

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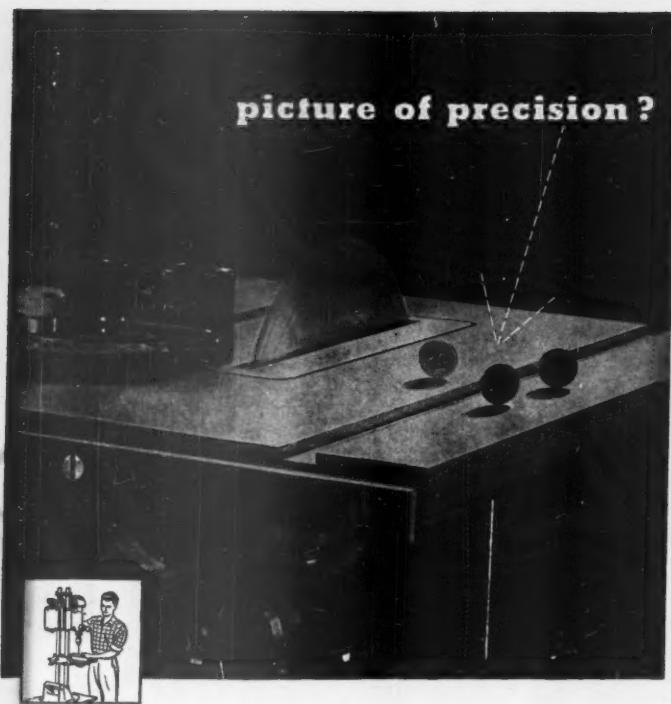
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picture of precision?



It's no trick to make coins stand on edge while the **SHOPSMITH** saw whirls at full speed. What's remarkable is the fact that you can do it with any one of the 100,000 **SHOPSMITHS** produced by the Magna Engineering Corporation since 1947. Never has so precise a power tool been made in such a large quantity in such a short period of time.

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of apprentice training in member shops is creating a "critical" situation.

NTDMA shops are mostly small ones, with high-skilled employees. Because of the age of the craftsmen, the association members say they need a 30% training program (three apprentices for every 10 journeymen) to insure against a tight labor pinch. On the average, the training rate runs less than 10%.

• **Some Industry Gains**—Electrical contractors had a similar complaint some years ago. Recently, however, their National Electrical Contractors Assn. heard some good news at its Phoenix (Ariz.) convention. W. F. Patterson, director of the Bureau of Apprenticeship, told the group: "For the first time . . . a major segment of industry, the construction trades, turned out new journeymen through apprenticeship at a rate in excess of normal trade losses" in the two years ended June 30, 1950.

Apprenticeship programs furnished 18,000 new journeymen during the period, he said; losses totaled 12,000 due to death, retirement, and permanent disability.

Patterson warned that figures for "normal trade losses" do not include losses due to transfers from the trade. So, he said, the surplus wasn't actually so large as it appeared. However, it did indicate "great strides" in training work.

• **No General Gain**—The "strides" haven't been general. Federal and state apprenticeship-training offices, and labor and management, concentrated on apprenticeship programs in the building trades after World War II.

Deficiencies went on unchecked in most manufacturing industries. The "ideal ratio" for apprentices differs from trade to trade—running to as high as one trainee for every two journeymen machinists. But Bureau of Apprenticeship "ideal" programs generally average out to about one trainee for every 10 journeymen.

On that basis, BA says, "there should be 800,000 apprentices at all times—one for each 10 of the nation's 8-million all-round craftsmen." That would assure some 200,000 new journeymen every year, since most training courses run for four years.

• **Critical Areas**—BA's concern is centered particularly, now, on training needs for 15 "critical" occupations, mostly in the metal trades. The Dept. of Labor listed these occupations last year after a survey and pointed out that serving a bona fide apprenticeship is about the only way a man can get the necessary job skill.

At most, some 30,000 apprentices are being trained in these "critical" lines—an inadequate one trainee for every 22 journeymen. Moreover, apprentices are concentrated in a few critical lines and in a few employment areas. And—because apprenticeship-training ranks

were inflated after World War II by an influx of veterans, now completing training—most apprentices will finish training by the end of 1952.

• **What's Wrong**—BA says that the whole fault for "inadequacies" in apprenticeship training isn't due to union opposition—although that is a big factor.

Employers are partly to blame, according to BA. Many don't want the responsibility of setting up and administering training programs—preferring to hire already trained workers. Others would be willing to put in programs, BA says, if they weren't afraid of "trouble with the unions" about the operation of an apprenticeship plan.

Raise in Rubber

URW to demand "substantial" sixth-round hike. With WSB back in business, other unions are expected to follow suit.

Any day now the United Rubber Workers (CIO) will be putting in its bid for a 1951, sixth-round wage hike. It wants to be way up front in what promises to be a parade of unions moving toward higher wage levels, now that the Wage Stabilization Board is ready for business (page 30).

URW's 200-man wage-policy committee met in Detroit last week, studied 1951 demands behind closed doors, then announced it was ready to begin bargaining for a "substantial" raise. The group said a hike "is justified on the basis of increased living costs, fabulous and unprecedented profits in rubber and allied industries, and the increase in manhour productivity."

• **No Hard Figure**—As usual, the committee wasn't specific about its raise demand. It said the negotiating committee for each major employer—Goodyear, Goodrich, Firestone, and U.S. Rubber—will be on its own, at least at the start of bargaining. The first to break through with a settlement will, as in the past, set a pattern for all.

Negotiations are expected to open with Goodyear. The contract there permits a 30-day reopening on wages. In trade circles in Akron, word is that URW will ask for a reopening at once and will demand a raise of about 20¢ an hour. It's also expected that URW will settle for half of that. Either figure would pierce the present WSB ceiling.

URW's other demands include: an increase in the present 3¢ night-shift premium; increases in pension, insurance, and medical-care programs; a full union-shop clause in all contracts, similar to that recently granted by Goodyear (BW—Apr. 7'51, p31); and a 30-day wage-reopening clause in all contracts.



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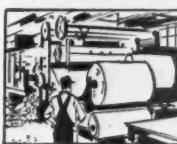
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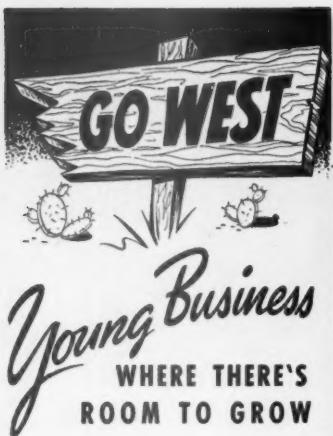
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In 1946 Julius Krug and John L. Lewis worked out a welfare plan based on royalties.



In 1947 Lewis handed out the first check as the fund started paying off to miners.



In 1951 anthracite pensioners wonder if slumping coal output can support the plan.

Lewis' Welfare Plan Stumbles Again

Hard-coal trustees postpone pension payments because of low output in March. Miners want production stabilized.

Eight thousand Pennsylvanians got a rude shock last week.

And new pressure built up behind a proposal to have the federal government stockpile anthracite coal.

It all traced back to the day five years ago when John L. Lewis, the story goes, outsmarted Julius Krug.

In 1946 Lewis was receiving congratulations for a brilliant bargaining coup. He had induced the government, then in possession of the coal mines, to

grant his union a welfare fund. Beyond that, he had really "put one over" on Interior Secretary Krug, who negotiated a contract with him on behalf of the government.

• **What He Did**—How had Lewis outsmarted the hapless Krug? Very simply—by getting him to consent to finance the welfare fund on a tonnage-royalty basis rather than on the more orthodox percentage-of-payroll method.

Accounts of how Lewis maneuvered

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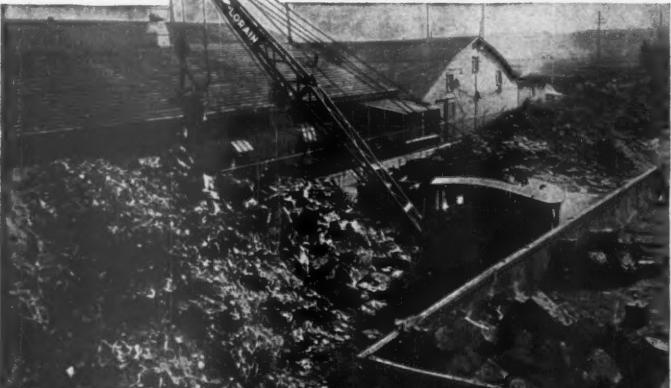
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SAVED \$300-400 PER MONTH  in railroad car demurrage rates—by faster unloading.	SAVED ON SCRAP PURCHASES  by eliminating need for premium scrap suitable for hand shoveling.
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the feat were told all over by his associates. It seems that after the arduous bargaining that brought agreement on a welfare fund, Lewis rose to leave. After shaking hands with Krug, thanking the stenographer who had been taking shorthand notes of the discussion, and picking up his hat, Lewis moved to the door.

"Well, Julius," said Lewis to Krug, "I guess we did a day's work."

"We certainly did, John," Krug is supposed to have replied.

"And by the way, Julius," said Lewis over his shoulder as he opened the door, "I'll send you a memo tomorrow on how we'll finance the fund on a tonnage-royalty basis."

"What do you mean, John?" Krug asked, worried that here might be some new issue.

"Oh, you know," Lewis replied, waving one hand airily, "a nickel a ton for welfare to be paid in some way that we don't have to argue about."

"Sure, sure," said Krug, desperately eager to believe that this was as inconsequential as Lewis was treating it.

• **Threat Forestalled**—So ran the story. Whether it is true or not, the fact remained that Lewis seemed to have succeeded in some far-sighted bargaining. Aware as he is of the cyclical trends in the coal industry, he had safeguarded his fund against a very serious threat.

The threat is, of course, technological advance. Given the existing trend in mechanization, the outlook is for the mining of more and more coal with fewer and fewer manhours. The financing of any fund out of payroll percentages is thus inevitably a downhill operation. Given a reasonable level of coal production, however, royalty financing should keep the fund healthy.

• **Shock**—Yet cozy as things might appear for the Mine Workers Welfare Fund and its beneficiaries, 8,000 Pennsylvania miners who are either over-age or sick and injured had a rude shock this week.

Instead of receiving their monthly welfare checks, they got official notice that their expected payments will be "temporarily delayed." The reason: Anthracite output is down sharply. In the third week of March, for instance, output barely topped 400,000 tons. In all March, it was only 2-million tons. All through January and February, it had run at more than twice that rate. And the plan operates on a month-to-month receipts-and-payments basis.

• **"Delayed, Not Lost"**—The decision to postpone payments due about May 1 was made two weeks ago by anthracite's three-member Welfare Fund Board of Trustees. The board advised beneficiaries that funds "were depleted due to the unprecedentedly low (hard coal) production in March."

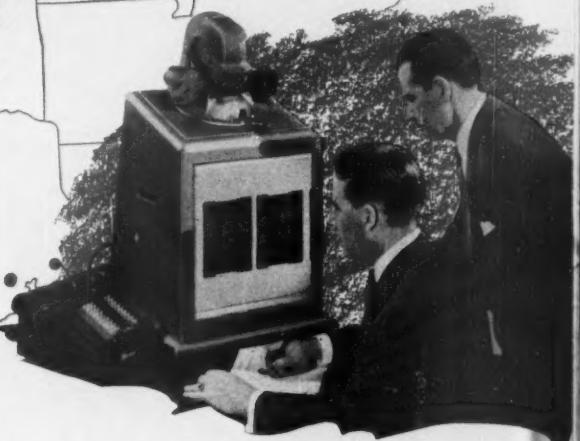
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the April payments were only "delayed, not lost." Later, the board said it "expects" to make a payment to beneficiaries about May 15.

• **Unsound?**—The welfare-fund rules do not require monthly payments; checks can be delayed, or even suspended, whenever monthly coal output doesn't bring in enough money through royalties to meet fund requirements. Mine operators protested this "unsound" feature of the welfare fund in 1948 and 1949, but got nowhere. The union stuck to an argument that royalty income from anticipated "normal production" would be sufficient to cover all needs.

Mine operators wanted a plan fashioned more along lines of other industrial welfare programs. These have an actuarial basis; they estimate pension and other fund requirements, then build up reserves to meet all needs on a long-term basis.

• **Soft-Coal Suspension**—In 1949 John L. Lewis suspended payments from UMW's bituminous welfare fund (separate from that in anthracite) during contract bargaining. He complained that some operators weren't paying royalties. At that time the fund, then supported by a 20¢-a-ton levy, was running critically low. The suspension of payments and a strike that followed "spontaneously" helped lift the royalty to 30¢. Payments were resumed—but back benefits weren't made up.

The present delay in hard-coal payments is strictly a financial move. At most, March royalty income was \$600,000, less than a month's requirements for 8,000 beneficiaries. There were no reserves to make up the difference.

• **Backing for a Law**—However, the delay came at a time when it gave strategic backing to a new UMW demand—a law to maintain normal employment for hard-coal miners.

Anthracite production is now controlled by an industry-union board, operating under Pennsylvania law. It fixes mine work schedules each month after surveying market conditions.

UMW has backed the joint-board program for years as a means of stabilizing coal production. But it would like a further step: stockpiling of anthracite supplies.

• **National Board**—A bill to do this is about to be introduced into the U.S. House of Representatives. It would create a National Anthracite Board to stockpile hard coal "to assure adequate supplies in future emergency periods."

The board would be set up in the Interior Dept. and would determine how much coal should be bought by the government each month at "just and reasonable prices." Presumably, this amount would be the tonnage difference between "normal" production and what can be used in the commercial market.

Sabotage Net

It's widening as government moves to strengthen plant defenses. DP agencies ordered to stop dealing with leftist union.

Quietly and unobtrusively, the federal government is widening the application of its safeguards against sabotage and espionage. More and more plants and offices are feeling the effects.

Last week the Displaced Persons Commission ordered three New York voluntary agencies to sever relations with the leftist Distributive, Processing & Office Workers—or to forfeit their rights as accredited groups. The agencies were engaged in resettling displaced persons in the U.S.

• **Unhappy**—All three agencies immediately canceled contractual relations with DPOW. The largest, the United Service for New Americans, said it had been "unhappy" over DPOW's political leanings for some time, but had felt it couldn't act on its own initiative. The other groups, the Hebrew Sheltering & Immigrant Aid Society and the United States Committee for the Care of European Children, complied "in the interest of national security."

No employees of the three agencies operate overseas where security screening is done. John W. Gibson, Assistant Secretary of Labor and DPC chairman, emphasized that no members of a leftist union have anything to do with screenings. The bar against DPOW was extended, he said, because "in cases of doubt, the doubts will be resolved in favor of the security of the United States."

Gibson, a former CIO official, said the action against DPOW was based on "information available to DPC" concerning the union—an amalgamation of three unions kicked out of CIO on charges of Communist domination.

• **AEC Action**—The DPC order had a precedent established in 1948 when the Atomic Energy Commission directed the University of Chicago to halt bargaining relations with the leftist United Public Workers (then CIO) at the Argonne National Laboratory.

A few days later, AEC directed the General Electric Co. to withdraw recognition of the left-wing United Electrical, Radio & Machine Workers (then CIO) at the Knolls II Atomic Power Laboratory at Schenectady. After CIO ousted UE, the new right-wing International Union of Electrical Workers (CIO) got a contract without any trouble.

AEC's directives covered only the Chicago and Schenectady operations; they were the only AEC-owned laboratories where private contractors were



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confronted with left-wing labor organizations.

• **Suppliers**—But AEC recognizes that there's also a threat in plants of AEC subcontractors and suppliers where left-wing unions still represent workers. Word has gone out to AEC contractors to set up a second source of vital supplies if their regular supplier deals with a left-wing union.

AEC feels that its problem of suppliers with left-wing labor contracts is shared by the Defense Dept. Informal discussions have been held on common policy.

Voluntary "screening" of workers was one thing considered. Such a plan was worked out last July by the FBI, the U.S. Coast Guard, right-wing maritime unions, and maritime employers. Its aim is to weed out Communists and other subversives working or seeking employment on ships and docks. A man who can't pass a loyalty test can't get work papers—and without them he can't get a job.

• **Joint Action**—The job of keeping a Communist out of a plant is a lot harder than on ships and docks. But recently NLRB General Counsel George J. Bott simplified the procedure somewhat. He upheld the right of an employer and union to act jointly to get rid of a Communist sympathizer (BW-Apr. 14'51, p31).

The Federal Communications Commission, Federal Power Commission, and other agencies also are concerned over the threat of sabotage. So is industry, which was jolted recently when FBI Director J. Edgar Hoover told a congressional committee that there are 43,217 known Communists in the country and that a "hard core" are trained saboteurs, ready to cause trouble in vital industries if war comes.

• **Up to Management**—The U.S. Chamber of Commerce last week devoted part of its annual meeting to a discussion of plant protection. Talk centered largely on who is responsible for protecting government secrets and defense production facilities. The conclusion was that primary responsibility lies with management, which must police its properties and see that Defense Dept. protective rules are adhered to.

Two Munitions Board pamphlets are available to help employers do that:

• Principles of Plant Protection, issued Aug. 1, 1950, and covering espionage, sabotage, enemy attack, fire protection, and accident prevention. (Available from the Government Printing Office, Washington, for 15¢.)

• Industrial Security Manual for Safeguarding Classified Matter, issued Jan. 18, 1951, and covering government security regulations and control measures for guarding secrets. (Government Printing Office, 10¢.)

LABOR BRIEFS



ECA poster using irony to "sell" the American way of life abroad cites United Nations figures to show workers fare better under capitalism than communism. It's part of a union-backed drive to mobilize European labor for democracy.

The impact of TV is being felt by Chicago unions—members aren't attending meetings so often as they used to. As a result, CIO's United Steelworkers and other unions are studying ways to overcome video's "stay-at-home" lure.

Loyalty checks are now being made by the Canadian government among Great Lakes seamen. A screening program, similar to that in this country, started Apr. 16 under Canada's new Emergency Powers Act.

Heavy losses (an estimated \$1-million) prompted the International Ladies Garment Workers Union (AFL) to close two of its three FM radio stations. ILGWU folded KFMV, Hollywood, and WVUN, Chattanooga, is still operating WFDR, New York, its key outlet.

A union can't blackball a new employee through a contract clause saying workers must be "satisfactory to both parties." NLRB has ruled that such a clause is an illegal union-security device.

Job-bias bans are up for votes this year in legislatures of 10 states—Colorado, Michigan, Minnesota, Ohio, Arizona, Indiana, Montana, Pennsylvania, Utah, Illinois—and Alaska. Eight states already have FEPC-type laws.



Precision Under Pressure

The entire Taft-Peirce Contract Manufacturing Division — its designers, machinists, inspectors, and its versatile array of hundreds of modern machine tools — are all working against the clock to help many manufacturers maintain their production schedules. Yet this unique organization faithfully maintains its traditional standards of precision, standards which seldom are matched in high speed production. Practice, care, and quality workmanship are never sacrificed under pressure.

If you would like to get a clear, complete picture of the equipment and facilities of this plant, write for a copy of the illustrated book entitled "Take It To Taft-Peirce." The Taft-Peirce Mfg. Co., Woonsocket, Rhode Island.

For Engineering
Tooling
Contract Manufacturing

TAKE IT TO TAFT-PEIRCE



MARKETING



Movie Houses Grasp at TV

They think that large-screen exclusive presentation of special events may stem the ebbing box-office tide. FCC to hear industry's plea for a slice of spectrum.

The movie industry is faced with a continually declining box office, and right now it looks on television as the chief source of its woes. This has led at least one branch of the trade—the exhibitors—to conclude that the best solution is to try a hair of the dog.

• **Hearing**—Last week two important pieces of news pointed in this direction:

• The Federal Communications Commission announced that the long-awaited theater-television hearings will start Sept. 17. No less than 50 industry groups—mainly exhibitors—have already filed to be heard. They will seek to persuade the commission that the industry should have a piece of the spectrum for exclusive theater-TV use.

• United Paramount Theaters announced in New York that it will install theater TV equipment in 22 theaters, mostly in the midwest. That will raise the number of Paramount theaters with large-screen TV to 27.

This will be a big jump forward for theater TV. Today less than 20 theaters are equipped with large-screen equipment. Trade circles report that some 75 theaters now have equipment on order. Mitchell Wolfson, head of the TV committee of the Theater Owners of America, predicts that the figure will reach 100 by the end of the year.

• **Two Schools**—There are two main viewpoints in the industry about the

use that theaters should make of big-screen television. Paramount officials think the big future lies in occasional showings of special events, designed primarily to keep the box office on an even keel. Leonard H. Goldenson, United Paramount president, recently told his stockholders, "Box-office receipts show a clear gain where special events are carried."

In line with this policy, Paramount plans to show mainly football games in its midwestern theaters and is now negotiating with Midwest colleges for rights. Here's Paramount's attitude summed up: "We don't want to make a TV set out of the motion picture screen."

On the other hand, Spyros Skouras, head of 20th Century-Fox, envisions theater TV in terms of huge variety shows, shown simultaneously at special performances in hundreds of theaters. These programs would be so expensive, so big that no broadcast television sponsor could begin to compete with them.

I. Spotty Experiments

To date, theater TV has been on a very spotty basis as exhibitors have fumbled for a pattern. The mainstay has been big events—President Truman's speech before the United Nations in

October, the Kefauver hearings, MacArthur's appearance before Congress—and sports. The results have been spotty, too, though good enough to encourage the exhibitors.

Take the MacArthur show. Theaters throughout the country suffered losses because people were glued to their radios or TV sets. But the theaters that carried the speech on large-screen TV made out much better.

Other successful uses have been made of special events. The Palace Theater in Albany has pulled audiences of 2,500 on specially piped-in basketball games. On the other hand, Boston's Pilgrim Theater laid an egg when it piped in the Boston Symphony Orchestra.

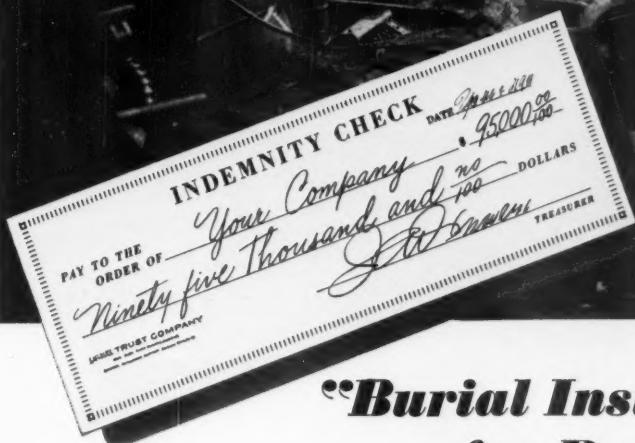
• **Football**—The major test of theater TV so far has been that run off by five midwest United Paramount theaters. They had an exclusive last fall on the football games of the Big Ten. The chain actually suffered a loss for the season, but is still enthusiastic about the prospects. Observers point out that with, say, 25 theaters in the chain costs would be spread to the point where there would be a very healthy profit.

This raises one of the thorny problems immediately facing theater TV. It's the old problem of the chicken vs. the egg. Exhibitors aren't anxious to lay out cold cash for TV equipment until there is some assurance of important, regular programming. By the same token, such programming is unlikely unless there are enough paying customers to bear the costs.

• **Expensive**—Cost of equipping a theater today with large-screen TV is considerable. Radio Corp. of America charges about \$16,000 for its equipment, a drop of \$9,000 from the original price. RCA's is the favored equipment today. Paramount will use RCA equipment in 20 of its new installations.

There are, however, other systems available. Paramount has one of its own. The Paramount system receives the television program, records it on film, and projects it onto the screen all in the space of one minute. Chief advantage claimed is that programs can be "spotted" to conform to the theater's schedule of feature showings and repeated at later performances. They could even be sent over to neighborhood houses for second and third runs. (RCA's system simultaneously receives and shows the program without the intermediate step of translating it onto film.)

• **Swiss Method**—A third system, the Swiss Eidophor, has recently been



"Burial Insurance" for Business . . . ?

If your business were burned-out tomorrow, the records indicate the chances are 2-out-of-5 that it would be dead as a doornail . . . and stay that way.

For, while it may help cushion your financial loss, no indemnity check can take the place of scarce materials and equipment. No indemnity check can replace invaluable, burned-out records. No indemnity check can bring back lost customers . . . or skilled workmen who have strayed to other jobs.

Therefore the only true protection for your business is to control fires that do start, preventing them from spreading and doing irreparable damage. Fires can be

controlled by checking them at the source, when they start, with Grinnell Automatic Sprinkler Systems.

A record of over seventy years shows that practically every fire starting in buildings protected by Grinnell Sprinklers was extinguished before doing material damage. If you have fire insurance, you're probably paying for Grinnell Protection anyway . . . so why not have it!

GRINNELL

FIRE PROTECTION SYSTEMS



GRINNELL COMPANY, INC., PROVIDENCE 1, RHODE ISLAND • BRANCH OFFICES IN PRINCIPAL CITIES



PRODUCTION RATE

5 Times as Great!

Reports TRU-VUE Company,
Rock Island, Illinois

Production soared when SPEED CLIPS® were incorporated in the redesign of film viewer. Other immediate benefits: new beauty, new sales appeal were added to product; new safety-in-use provided.

The Tru-Vue Company recently put their film viewer through a complete redesign process. Out of this came a new method of installing lenses in the eyepieces. This vital product-improving design change was effected with "custom-built" SPEED CLIPS. The most important advantage was the simultaneous installation of both lenses instead of the one-at-a-time method previously used. Under actual assembly line conditions *this provided an increase in production from 400 units to 2,000 units per day!*

What's more, the design of the viewer was streamlined for greater eye appeal, and for more economical plastic fabrication. Also, the lenses were secure and safe—no chance for them to become dislodged or lost, as they did in the old style viewer.

All this adds up to real savings for Tru-Vue Company. Some of the same might be in order for *your* products. Find out the easy way—through a comprehensive Tinnerman Fastening Analysis. Sales offices in principal cities are ready to serve you—or write for details. TINNERMAN PRODUCTS, INC., Dept. 12, Box 6688, Cleveland 1, Ohio. In Canada: Dominion Fasteners Limited, Hamilton. In England: Simmonds Accessories, Ltd., Trefores, Wales.



bought by 20th Century-Fox. It is claimed that the Eidophor technique projects a clearer, sharper picture, onto a larger screen. This equipment probably won't reach the market for two years. Industry talk is that it will be manufactured by General Precision Laboratories, Inc., which is already producing a 16-mm. theater-TV system similar to that made by Paramount.

• **Half a Billion**—The advocates of theater TV are apt to talk in hyperboles. Nathan L. Halpern, consultant to the Theater Owners, estimates that there is a "potential total revenue of \$500-million" in theater TV. He thinks that no less than 10,000 of the country's 18,000 movie houses will eventually install larger-screen equipment.

II. The Channel Problem

A lot depends on the result of the FCC's forthcoming hearings. Various industry representatives will ask for everything in the spectrum. Best guess seems to be that the commission will compromise—give the special channels, but on bands so high in the spectrum that engineers have not yet figured out how to use them. However, industry engineers figure they can lick any engineering problem the commission gives them.

The important thing, theater people argue, is to get hold of a chunk of the spectrum, somewhere, sometime. They insist that AT&T, even with expanded facilities, won't be able to carry the load put upon it by any large-scale theater TV programming.

• **The Big Ifs**—However, even if the exhibitors get what they want from FCC, a lot of industry observers wonder just how much good it will do in the end. Will people pay to see football games when they can see others free over their own TV sets? Why should movie houses pipe in expensive live shows when they can show better ones on film? These are only a few of the questions they ask.

They also point out that the movies' troubles are not due solely to television. They think that there are two long-term trends running against the movies.

• Movies and movie cathedrals have lost their novelty appeal.

• Population characteristics are unfavorable to the movies. Younger people are the movies' best bulwark. But the current younger generation is busy at home raising families. It hasn't enough time, money, or baby sitters to afford movies.

The critics look on theater TV as a stopgap. It will go over, they think, as long as some areas don't have TV or until more people have sets. But after that? They wonder.



Cutlery tray molded from clear Koppers Polystyrene 31. Insert from white opaque Polystyrene. Small steak knife tray and insert both from Ivory Polystyrene 31. Manufacturer: Stanley Home Products, Inc., Easthampton, Mass. Molders: St. Clair Plastics, Watervliet, N.Y., and F. J. Kirk Molding Company, Clinton, Mass.

• Attractive packaging is a must for merchandise sold through Stanley Home Products "party" plan. And these reusable cutlery trays have that necessary eye-appeal—they're molded from Koppers Polystyrene.

Koppers Polystyrene 31—in opaque white, clear and ivory—adds more than just beauty to these trays. Its excellent molding characteristics mean fast, free flow for large areas and thin sections. And its light weight means more pieces per pound and lower unit cost.

Defense measures have limited supplies of Koppers Polystyrene and have made allocation measures necessary. During this time, we want to work with you to obtain the best results from your use of Polystyrene (with special attention to military end uses) . . . to design new products to be made from Koppers Polystyrene when the supply situation again becomes more normal.

KOPPERS POLYSTYRENE HAS MADE
MANY PRODUCTS BETTER
AND MANY BETTER PRODUCTS POSSIBLE



Koppers Plastics

KOPPERS COMPANY, INC.

Chemical Division Pittsburgh 19, Pa.
SALES OFFICES: New York • Boston • Philadelphia • Chicago • Detroit • Los Angeles

Papers in Court

Ad policies got them there.

Two cases will settle how far a newspaper can go in competing for business.

Advertisers and newspaper publishers are watching closely two antitrust cases this week. The final decisions in both will pin down just what advertising policies newspapers can or cannot pursue in regard to competitors.

• **Double Bill**—Here's the situation now:

• In Washington the Supreme Court agreed to review a lower court decision in the case involving the Lorain (Ohio) Journal. Last fall the District Court in Cleveland found the paper guilty of violating the Sherman act in refusing to sell space to advertisers who also patronized radio station WEOL (BW-Sep. 2'50, p28).

• In New Orleans the District Court got under way with the antitrust trial against New Orleans' Times-Picayune Publishing Co. The Justice Dept. accuses the paper of "illegal and unfair" advertising policies, which it says have hurt the New Orleans Item, its remaining competitor (BW-Jun. 24'50, p50).

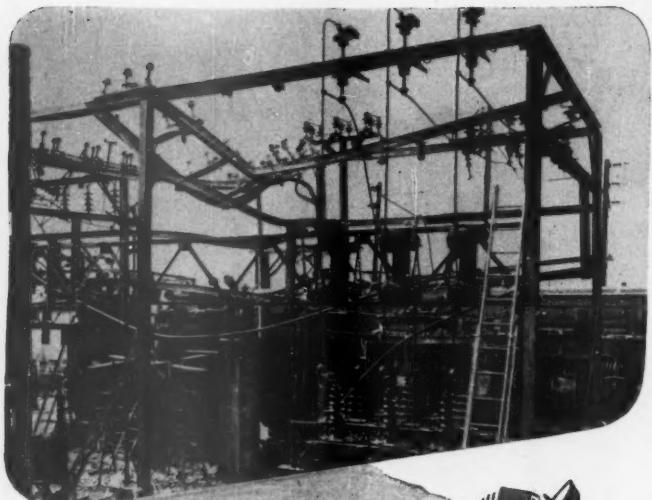
• **Unit Rates**—The nub of the New Orleans case is the "unit" advertising rates charged by the publisher for his morning Times-Picayune and afternoon States. The antitrusts charge that through these combination rates the publisher forces advertisers to buy the afternoon paper to get into the Times-Picayune, the more desirable medium. This, they say, hurts the afternoon Item.

The Times-Picayune counters with the claim that (1) it publishes a single paper with two editions under different titles, (2) unit rates are an accepted trade practice, and (3) if this violates the law, then the law is unconstitutional as abridging press freedom.

The Times-Picayune case may have a heavy impact on newspaper advertising rate structures. Research compiled by Standard Rate & Data Service shows that in 1949 there were 175 publishers in the U.S. who published both a morning and evening newspaper. Nearly all (169) sold both classified and national advertising at unit rates only.

• **Colorful**—The Lorain Journal case, though less significant, is the more colorful of the two. That's mainly because of the personality of Samuel A. Horvitz, its majority owner.

Horvitz, now 61, is a tough fighter who has run a small grocery store into a multimillion-dollar fortune in 31



they said... it can't happen HERE!"

That's right. Some well-intentioned individuals had it figured out that the hazard of fire at transformer sub-stations or industrial power generating units needed no particular study. So, as evidence, we offer the photograph above—proof of the fact that electrical equipment fires not only can, but do happen, and—with serious consequences.

Although damage to this transformer bank and supporting structural members was severe, the unseen loss of man-hours, out-of-service time and other factors, actually represents the major damage. They're losses, too, that seldom show up in fire reports.

In these days of our nation's need for maximum defense effort, you cannot afford to be without positive fire safety at all times. *Automatic FIRE-FOG* would have extinguished this electrical blaze instantly. Other systems of *Automatic Sprinkler* protection are available for the safeguard of any classification of commercial, industrial, or institutional property.

You can't overextend your practice of fire safety, for to anticipate fire is to avoid its ravages.

Stop fire at its origin with *Automatic Sprinkler* protection.

"AUTOMATIC" SPRINKLER CORPORATION OF AMERICA
YOUNGSTOWN I, OHIO

"Automatic" Sprinkler

FIRST IN FIRE PROTECTION

DEVELOPMENT . ENGINEERING . MANUFACTURE . INSTALLATION
OFFICES IN PRINCIPAL CITIES OF NORTH AND SOUTH AMERICA



CHARGED with Responsibility . . . this can be said of every furnace in the Bristol mills, manned by veteran Brass-casters whose working instincts have been whetted to razor-edge by years on a job that's *really* "for men, only." Here begins Brass in true Bristol-Fashion . . . to be strictly "brought up" into sheet, rod and wire that proves to be *Brass at its best* . . . in every shipment . . . on every job. The Bristol Brass Corporation, since 1850 in Bristol, Conn. Offices or warehouses in Boston, Chicago, Cleveland, Dayton, Detroit, Los Angeles, Milwaukee, New York, Philadelphia, Pittsburgh, Providence, Rochester.

Another insight into the full meaning of: "**Brass made Bristol-Fashion**"

They knew something was in the air!

When Ford pried the lid off this box, a revolutionary new way to pack auto parts came to light. Customs was to spray bare metal surfaces with grease or oil. Then, before parts were usable, they had to have a "hot bath." But after 3 months of open storage with only Angier VPI® Wrap to line this box, the floor pans came out shiny and clean. "No evidence of rust" said Ford's Export Division.

Because VPI takes the rust-making power out of air and moisture, you know when this invisible vapor is in the air. Today 8 big names in the automobile world are saving priceless man-hours and valuable floor space with Angier VPI Wrap. It stands to reason that this proven vapor method can stop rust for you! Write: Angier Corporation, Framingham 7, Mass.

SHOPPING FOR EXHIBIT CASES ?



BUYERS of exhibit cases everywhere are choosing Michaels "Time-Tight" Cases because they are tops in design, quality, structural features, appearance and usefulness.

Michaels cases offer Innerlocking Frames, an exclusive feature; fully mitered intersections; no screws exposed on face of frames, and other structural advantages.

These cases are designed for maximum visibility; to enhance the appearance of exhibits; to eliminate handling and theft

as well as the ingress of dust, vermin and moisture. They are made in a wide variety of styles (table, aisle, wall, corner, suspended and recessed) and in any practical size to take care of virtually all exhibit requirements. If it is necessary to meet specific needs, Michaels will design and build special cases to your specifications. "Time-Tight" Cases are used extensively in museums, art galleries, libraries, universities, colleges, schools, clubs, banks, federal, state and municipal buildings, science laboratories, institutions and various industrial and related types of display rooms.

Write for literature which contains complete information.

MUSEUM CASE DIVISION OF

The MICHAELS ART BRONZE CO., Inc., 232 Scott St., Covington, Ky.

Manufacturers since 1870 of many products in Bronze, Aluminum and other Metals

years. Most of his money has come from his paving contracting company, Highway Construction Co., one of the largest in Ohio. He has also made money in Florida real estate. Never known to avoid a fight, he tackled the government's case against the Journal with the same defiance he exhibited towards contractors in bidding. He has taken on labor unions, big-time business operators, political bigwigs—and has left a lot of scars. His Lorain Journal was the first paper ever struck by the Newspaper Guild.

• **Private Fight**—He silently entered the newspaper field in 1921 when he put up the money to purchase the Lorain Chronicle-Telegram. He formally took over in 1930, by which time the paper had become the Journal. Principal reason given by Horvitz for buying the Lorain paper was: to "get a square deal" on paving contracts in Lorain County.

His target was R. C. Hoiles, editor of the Lorain Times-Herald and publisher of the Mansfield (Ohio) News. Hoiles had been critical of Horvitz over a controversial paving deal. So bitter was the scrap that Horvitz established a paper in Mansfield to oppose Hoiles there, too.

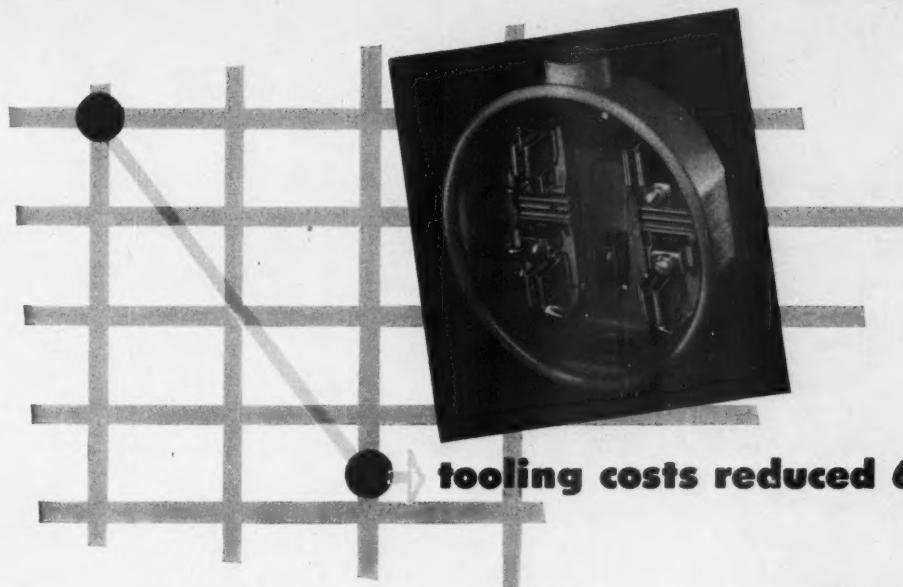
In the ensuing struggle, Hoiles lost heavily while Horvitz could make up any losses with income from other activities. In the end, Hoiles sold out his papers. Two years later, in 1932, Horvitz bought them both, killed them.

Since then Horvitz' only competition has been a Sunday weekly published in Lorain, the local Lorain radio station (WEOL), and the Mansfield station.

• **Radio Ban**—Three years ago Horvitz, seeing the threat of radio to his papers, applied to FCC for permission to operate stations in Lorain and Mansfield. The application was denied. FCC said that Horvitz and his brother, Isidore, "operated their newspapers with a consistent objective of suppressing competition and establishing monopolies in advertising" (BW-Jan. 28 '50, p.28).

The Justice Dept.'s case against the Lorain Journal was brought in 1949, came to trial in March, 1950. The charge: seeking to restrain interstate commerce and to monopolize news and advertising in Lorain. Plenty of advertisers—Sears, Roebuck was one—testified that their contracts with the Journal had either been canceled or had not been renewed when they used the local radio station or the weekly newspaper.

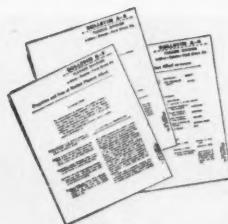
The court ruled out the paper's argument that freedom of the press was involved. "The defendants did not exercise their right of rejection because the advertising offered was offensive in substance," said Judge Emerich B. Freed. An injunction followed this January.



tooling costs reduced 66%

Let Mr. Ray Blakeman, president of Blakeman Bros. Electric Mfg. Co., Los Angeles, tell you this story of savings with Plaskon Alkyd Molding Compound in the manufacture of his company's commercial and residential watt-hour meter-mounting devices. Mr. Blakeman writes: "Tooling cost is about one-third using this material as compared to the tooling cost of other plastic materials"..."We have found that Plaskon Alkyd lends itself very well to automatic molding, giving us a high production rate on automatic presses"..."Percentage of reworks and breakages is extremely low"..."Our particular device requires a high dielectric strength for which Plaskon Alkyd is noted"..."Since using Alkyd we have not had one operating failure...of our product."

Here is more evidence that parts can be molded better and faster at lower cost—with the amazing quick-curing plastic which has created new concepts of speed and economy in compression molding.



It may pay you well to check the possibilities of Plaskon Alkyd in relation to your product. We will be glad to send you a complete set of the latest bulletins describing the many unusual properties of this unusual thermosetting plastic molding compound.

mold it better and faster with

PLASKON DIVISION • LIBBEY-OWENS-FORD GLASS COMPANY
Toledo 6, Ohio

In Canada: Canadian Industries, Ltd., Montreal, P.Q.
Branch Offices: Boston, Chicago, New York, Rochester, Los Angeles
Manufacturers of Molding Compounds, Resin Glues, Coating Resins

PLASKON.

ALKYD



OPENING of the Materials Handling Exposition in Chicago last week wound up almost two years' work by the exposition manager.

For a Five-Day Trade Show, Two Years of Preparation

Trade shows are like icebergs—the largest part of them doesn't meet the eye.

Last week more than 25,000 business executives visited one of the biggest industrial circuses, the National Materials Handling Exposition held in Chicago's International Amphitheatre. For five days they strolled around the eight acres of show space, looked at



BOOTH SPACES were marked off in chalk on Chicago Amphitheatre floor.



SIGN SHOP in the show was staffed by 16 who painted nearly 1,000 signs for exhibitors. They cost from \$1 to \$200. Most were last-minute orders.



DRAWING LOTS for space in this year's show took place at end of last show in 1949.

\$10-million worth of new equipment demonstrated by some 3,000 sales representatives, representing 240 different manufacturers. Some of them bought equipment on the spot; most left their names on prospect lists.

• **Behind the Scenes**—What the visitors didn't see was the months and months of painstaking preparation that made the show run smoothly. That

was the job of Clapp & Poliak, Inc., of New York, manager of industrial shows for the past 25 years and frequently referred to as "the Barnum & Bailey of industry."

Truman Clapp and Saul Poliak began planning for last week's show two years ago, right after they wound up the last Materials Handling Exhibition in Philadelphia. Picking the place was



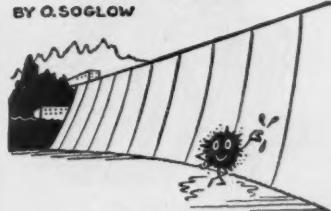
MESSENGER staff was kept busy distributing packages of literature to exhibitors.



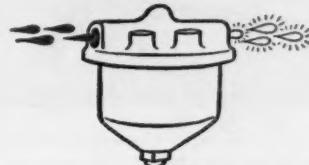
PHONES spotted by one exhibitor gave visitors directions to booths, restaurants.

AIR-MAZING FACTS

BY O. SOGLOW



DUST FIXES DAM. When 30,000 gallons of water per minute began leaking through the Grand Coulee Dam, engineers plugged the leak with dust! They used bentonite, a volcanic clay dust that holds up to 15 times its own volume of water.



KEEPS OIL SPIC AND SPAN. Air-Maze liquid filters remove abrasive particles from engine lubricants, fuels and hydraulic fluids. "Disc" construction provides many times more net effective filter area than other types of permanent filters. All-metal construction. Like new after cleaning.



DUST SURRENDERS! Damaging dust can't get into vacuum pump engines equipped with Air-Maze closed-circuit Multimaze filters. Multimaze filters remove practically all abrasive dust and grit. They're easily serviced—all-of metal construction.

WHETHER YOU BUILD OR USE engines, compressors, air-conditioning and ventilating equipment, or any device using air or liquids—the chances are there is an Air-Maze filter engineered to serve you better. Representatives in all principal cities, or write Air-Maze Corporation, Cleveland 5, Ohio.

AIR-MAZE

The Filter Engineers

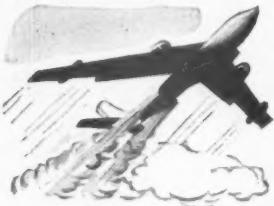
AIR FILTERS
SILENCERS
SPARK ARRESTERS

LIQUID FILTERS
OIL SEPARATORS
GREASE FILTERS

Paper at Work!



A close shave is the proud boast of many a fine razor blade. There's no place here for rust and corrosion. A little thing, perhaps, but typical of the 1,001 metal parts now enjoying the safe, sure protection of Rhinelander G&G® papers.



Jet planes and tanks... machine guns and all the vast paraphernalia of defense require a million and one replacement parts which must be protected from rust and corrosion until used. Rhinelander's special paper for ordnance wrapping contributes mightily to the solving of this important problem.



Just like mother used to make? Well, really, few mothers of yore could consistently make pie crust as good as almost any little housewife can today, using pie crust mix from a package (oh, yes . . . we make the latter).

*Glassine and Greaseproof — the functional papers that do so many tough jobs well.



comparatively easy; Philadelphia and Chicago are the only two cities with auditoriums large and strong enough, adequate nearby hotel space, and convenient transportation to handle the crowds that this show draws.

Once a hall was picked, Clapp & Poliak draftsmen drew up a floor plan, placed booths for the best use of the space. Then exhibitors drew lots for their choice of position (picture, page 52). The show managers use no salesmen to sell exhibit space; they mail out a prospectus outlining the objectives of the show and including a floor plan. That alone is usually enough to bring the customers in.

• **Promotion**—Promoting attendance is another thing. For this, Clapp & Poliak advertised widely in business papers and by direct mail, and hired a public relations firm. Exhibitors did a big part of the promotion themselves—mentioning the show in their own ads and sending out a million advance registration cards.

Actual administration of the show brought an overwhelming mass of detail. Everything had to be thought of, from availability of utilities on the floor to providing a matron in the ladies' washroom. Temporary telephone lines were installed on the floor—125 of them, with two switchboards. Forty electricians laid 20,000 ft. of wiring for lights and motor installations. Fifty carpenters moved in to uncrate exhibits and assemble them.

Inevitably, there was a jurisdictional dispute between the carpenters and machinery riggers over who should uncrate machinery. The show managers got the unions to postpone their debate until after the show.

Charges to exhibitors for labor were high: \$3.50 an hour for carpenters and \$4 for electricians—double for overtime.

The show manager also had to provide rented furniture—chairs, settees, desks, tables, drapes, etc.—for most exhibitors. Ten truckloads of it came in from United Exposition Service Co. of Chicago. The pieces were rented to exhibitors at prices ranging from 75¢ for a wastepaper basket to \$75 for a rug.

• **Dos and Don'ts**—To help exhibitors plan their displays ahead of time, Clapp & Poliak printed a 15-page booklet of information and rules. It set limits on floor load and height of exhibits, defined types of signs (flashing lights and loud speakers were banned), and gave information on shipments, utilities available, etc. In the outdoor annex to the exhibit, there was no need to restrict height. When it found this out, one exhibitor, Clark Equipment Co., promptly ordered a blimp to fly over its outdoor space.

Ideally, says Clapp & Poliak, an ex-

position should be so carefully planned in advance that it will run by itself once the exhibits are set up. Practically, it never works out that way. There is always a scurry to get last-minute work done while visitors are pressing at the doors. An hour before last week's show opened, for example, riggers were still putting up canopies over the outdoor exhibits. They couldn't go on until all the high machinery was moved in. Some of it was much delayed in shipment.

• **Payoff**—As an exposition manager, Clapp & Poliak gets its income two ways. It may hire its services out to a trade association and get paid on a fee basis. Or it may own all a show itself as it does in the case of the Materials Handling Exposition. It gets its income from rentals of booth space less charges for advertising, promotion, and rental of the hall.

The company estimates that the materials handling industry spent about \$3-million putting on the Chicago show. Of that, only about 7% or 8% was spent for actual rental of exhibit space.

MARKETING BRIEFS

California beer market is shrinking for midwestern and eastern brewers. They rode crest of wartime population shifts, commanded 25% of the California market by 1948. Now they've slipped to 19.4% of the total.

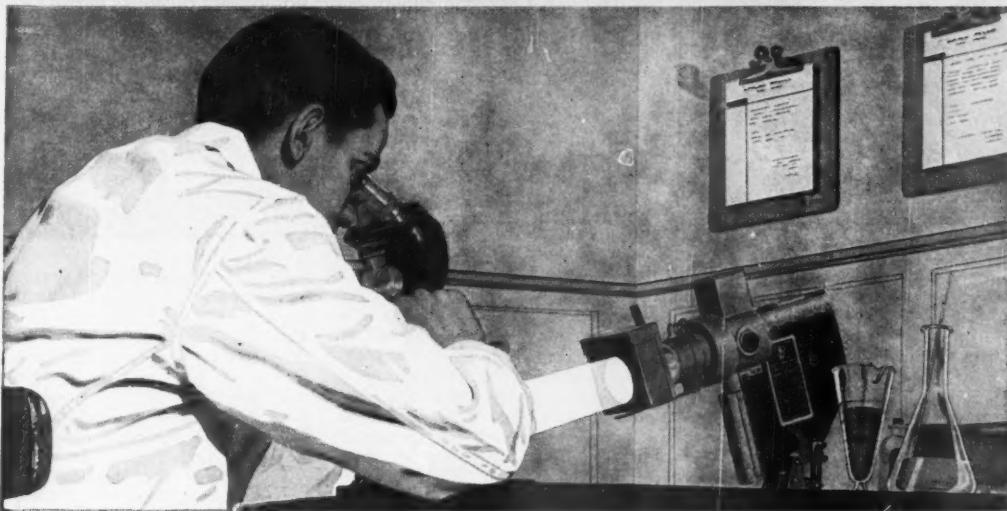
Allied Stores hit net sales of \$439.9-million last year. That's an increase of 7.9% over the year before. Inventories at the yearend were \$67-million, an increase of 28.7% since the beginning of the year.

Brown Shoe Co. is acquiring Wohl Shoe Co., which is reported to do a retail business of about \$35-million a year. This will give Brown 154 retail outlets of its own. Currently it sells through 482 franchise stores.

Gas appliance output during the first quarter hit record highs, says the Gas Appliance Manufacturers Assn. Manufacturers' deliveries of water heaters came to 680,600, a 47.7% increase over the first quarter of 1950. Ranges hit 813,300, up 27.5%.

"**Telicon**" is an infringement of the trade name "Telechron," according to a decision of the U. S. District Court of Delaware. It enjoined Telicon, Inc., from further infringement. Suit was brought by Telechron, Inc. Both companies make radios, TV sets, electric clocks.

Progress against ANEMIA



ANEMIA affects millions of people, both young and old, in our country today. Fortunately, medical science has accomplished wonders in treating certain types of this disease.

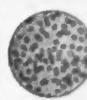
Anemia caused by a deficiency of iron can be easily cured. This is usually accomplished by taking medicine containing concentrated iron which the doctor prescribes. Foods such as lean meat, eggs, and green, leafy vegetables are rich in iron and should be included in the diet.

What Medical Science Is Doing . . .

The control of *pernicious anemia* is one of the great triumphs of modern medicine. Less than twenty-five years ago, victims of this disease generally lived only two and one-half years from the time the condition was diagnosed.

In 1926, however, a substance was found in liver that usually would do much to control pernicious anemia. Today, as a result of this discovery, the one hundred thousand people in the United States with this disease are able to live nearly normal lives.

Continuing research has developed



Normal blood looks like this through a microscope. The red cells contain a proper amount of coloring matter, or hemoglobin, a substance necessary for the transportation of oxygen throughout the body.



Anemic blood, from a victim of nutritional or iron-deficiency anemia, looks like this. The red cells are reduced in number, and are pale in color because they lack sufficient hemoglobin.

other effective weapons against this disease—for example, vitamin B-12. This vitamin controls pernicious anemia as effectively as liver extract.

Authorities say that there are many different types of anemia, each of which has a specific cause. Various dietary deficiencies, defects in the functions of the organs that manufacture blood cor-

ples, exposure to toxic substances, and certain underlying chronic conditions or infections may be responsible for it.

What You Can Do . . .

Anemia may develop gradually. Often the first symptoms—such as fatigue, weakness, and nervousness—may not seem serious enough to demand medical attention.

If these symptoms persist, however, they should receive proper medical attention. Specialists say that it is unwise to resort to any form of self-treatment. They emphasize that anemia can be cured or controlled only when the exact cause of the disease is determined and appropriate treatment is given.

The strength and vitality of every part of the body depend upon an adequate supply of normal, healthy blood. That is why it is wise for everyone to consult the doctor promptly if anemia is suspected. If the disease is diagnosed early, patients can usually be restored to normal good health, providing they follow the doctor's advice about treatment, diet, and other factors.

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Toolbuilder Keeps Its Hedge

In spite of the revival of defense business, Warner & Swasey will keep the construction equipment business that it built up as a sideline after World War II.

When World War II ended, a lot of industrial plants had to diversify or see their business go to pot. From 1945 to 1950, they carefully developed new lines to take up the slack in their expanded facilities. Now that war business is flooding back, these companies face a crucial decision: Shall they abandon the new lines they have built up so lovingly, or shall they try to keep them going?

Warner & Swasey Co., maker of machine tools, didn't waste any time making up its mind. Its new piece of construction equipment, the Gradall, is doing so well that the company plans to continue production, even though orders for machine tools are pouring in. It also plans to keep the special distributor organization it has set up to handle sales. Building this organization has been as much of a problem for W&S as building the Gradall itself.

• **Diversification**—Before the end of World War II the company's postwar planning committee screened some 2,200 products, looking for items that would provide new business when the inevitable slump in machine tools hit. It decided that Gradall was one of the two products that would fit into W&S' manufacturing pattern. The other was textile machinery.

Textile machinery didn't present any marketing problems. It's sold the way W&S sells its machine tools—by technically trained salesmen. But selling construction equipment, W&S found, requires a different technique. It calls for a distributor organization.

The reasons for selling through distributors are sound, W&S found after talking to other construction equipment makers. In the first place, manufacturers find it too expensive to handle trade-ins of old equipment. And trade-ins are just as common and necessary in the construction equipment field as in the automotive field.

Furthermore, construction equipment requires fast, on-the-spot service. A manufacturer can't blanket the country with service men and expect to make money. A distributor, who is usually close geographically to his customers, is known—and patronized—for the service he offers.

• **Distributors Got the Job**—Basically, it boils down to a point of economics. Manufacturers can't afford to perform the services that distributors can. Beyond that, the construction equipment field is peculiar in that contractors tend

to rely more on the reputation and service of the distributor than on the selling points made by a manufacturer. Contractors work closely with equipment distributors, too, in order to get the best deals on trade-ins and to buy a complete line of the equipment they'll need for a construction job.

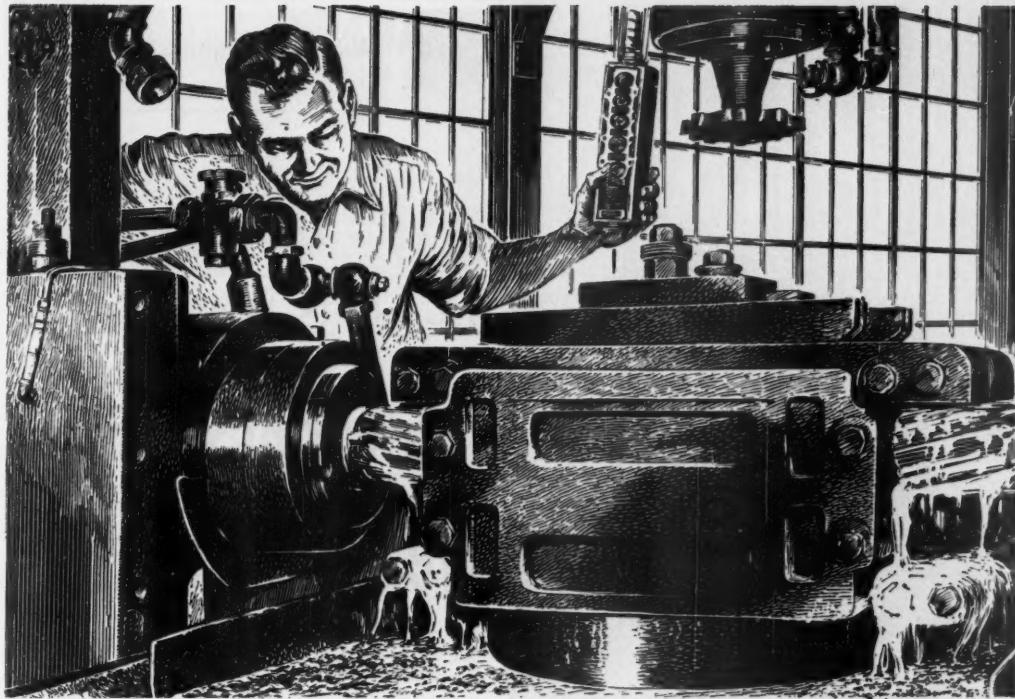
• **Slow Start**—So W&S decided to sell through established construction equipment distributors. But the company moved slowly in setting up its distributor organization. It started with one distributor, added one at a time; today there are 60. Distributors were screened with an eye to two things: (1) whether they were financially responsible, and (2) whether they were small enough in terms of earnings to have the incentive to go out and do a real selling job.

• **Know Your Machine**—Another reason for moving slowly was the realization that the new equipment would run into operating troubles at first. The Gradall is a multipurpose machine, operated hydraulically. An operator must be familiar with the machine before he can put it through its paces. And it took time to instruct distributors' sales and service staffs in the operating techniques and the jobs the Gradall can do.

The Gradall division put on demonstrations for distributors, until they knew the machine inside and out. And distributors had to purchase one Gradall to use for their own demonstration purposes—a real necessity in selling construction equipment. That sealed their sincerity as far as W&S was concerned. If they'd invest about \$20,000, W&S was convinced they'd do a real selling job.

• **Proved Performance**—Though the company was new to the construction equipment field, it sold itself on the basis of the Gradall's proved performance. One selling point: W&S has made precision machine tools successfully since 1880.

Despite the upsurge in machine tool orders since the start of the Korean war, production is going right ahead on the Gradall. Company officials feel the division can stand on its own feet. They demonstrated their faith last fall by moving Gradall to a plant of its own in New Philadelphia, Ohio. Right now, the Gradall division is devoting about one-third of its production to government orders. With the construction equipment industry classified as essential to the mobilization effort, W&S expects no significant cutbacks.



Workers are Willing... in the Land of Plenty*

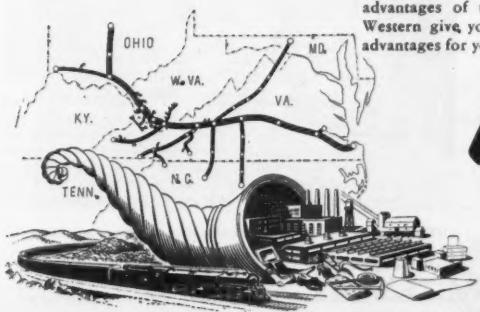
Workers in the great territory served by the Norfolk and Western Railway are men who don't feel that the world *owes* them a living . . . men who like the communities in which they live . . . men with the *STABILITY* which creates job experience for the worker and smoother operations ease for the employer.

Many of these workers are sons following their fathers in their trade. They are intelligent, and their abilities are easily adapted to skilled phases of manufacturing.

The records of successful manufacturers in *The Land of Plenty* show that *willing workers* represent one of the major advantages of this great and growing industrial region.

For complete, exact information about *The Land of Plenty* — furnished in confidence and without obligation — write the Industrial and Agricultural Department, Drawer B-407, Norfolk and Western Railway, Roanoke, Virginia.

Ask for this free booklet, "INDUSTRIAL OPPORTUNITIES IN THE LAND OF PLENTY." It gives you a good picture of the general industrial advantages of the region. Let the Norfolk and Western give you a detailed picture of the specific advantages for your particular type of industry.



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* *The Land of Plenty* — the six great states served by the Norfolk and Western — Virginia, West Virginia, Ohio, North Carolina, Maryland and Kentucky.



"**BEST AIR CONDITIONING JOB** in an existing building in Texas," says Paul E. Wise of Houston's Sterling Building, one of many recent G-E Personal Weather Control installations. To save space, particularly important in existing buildings that were not originally designed for air conditioning, small-size, high-pressure ducts were used for ventilation. Consulting engineer: Hollis U. Bible. Air conditioning contractor: Sebastian Air Conditioning Corporation.



AIR CONDITIONING SYSTEMS

In Houston,
St. Louis, New York...

G-E Personal Weather Control

*is saving space,
cutting cost*



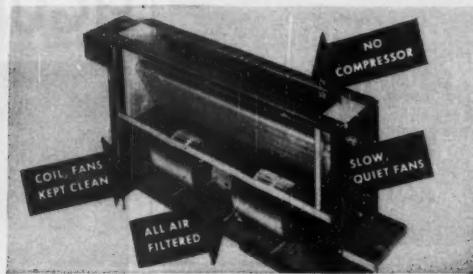
SHERATON HOTEL IN ST. LOUIS installed a G-E Personal Weather Control System in 1949. Expressing "complete satisfaction," Sheraton Corporation has since installed these systems in its hotels in many other cities. Units in unoccupied rooms can be shut off, saving power cost. They filter air, keeping coils clean and at top efficiency. Air conditioning contractor: Natkin and Company.



LUXURIOUS APARTMENTS now being built at Sutton Place South, 53-54 Sts., New York City, will give tenants individual climate control with over 1200 G-E room units. General contractor: Paul Tishman Company, Inc. Architect: Arthur Weiser. Consulting engineer: Rutherford L. Stinard. Air conditioning contractor: Raisler Corp.



COMPACT, 9-INCH DEEP UNITS in each room take little space, yet circulate air gently through large area. Units are supplied with attractive cabinets (above) or without cabinets for concealed applications. Simple pipe runs circulate chilled water for summer air conditioning, hot water for winter heating. Windows are never blocked.



EXTRA-EFFICIENT, QUIETER! G.E.'s room units filter all air, protecting coils from dust and dirt which cut efficiency drastically. Filter replacement takes less than a minute—it's much simpler and cheaper than costly coil cleaning. G-E units are quiet! There's no compressor in the room unit, just the quiet G-E motor and velvet-smooth, low-speed fans.

Consider how G-E Air Conditioning can make your building more profitable

Because space means money in both new and existing buildings, General Electric Personal Weather Control Systems have been designed for installation with small-size, space-saving ducts or no ducts at all.

These extremely flexible systems heat in winter and cool in summer. Individual room air conditioners (shown above) are supplied with chilled or hot water through simple pipe runs from a central source.

In new buildings, such as the apartments at Sutton Place South, 53-54 Sts., (at left) New York, the use of wall apertures for ventilation eliminates the need for ductwork and cuts installation cost. In existing buildings such as Houston's Sterling Building and the Hotel Sheraton in St. Louis, adaptability of ventilation methods to individual needs avoids the necessity of building alterations.

Flexibility Means Economy...Future space rearrangement is simplified by the use of G-E room units because of their flexibility in capacity. G-E Air Conditioning pays off in operating cost reduction, too. During periods of system start-up or reduced occupancy, the room units can

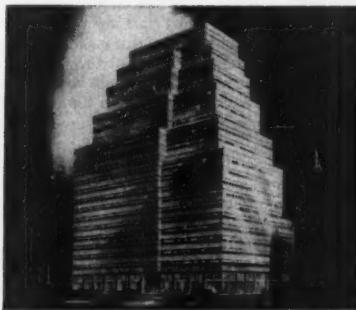
be operated without the expense of running central ventilation equipment. Units in unoccupied rooms can be shut off. G-E systems often require less compressor capacity, saving both installed and operating cost.

Building Value Increases...Tenants enjoy living or working where they get individual finger-tip control of climate without disturbing other rooms. Greater tenant satisfaction means lower turnover, more profitable occupancy.

Cuts Maintenance Cost..."Never had to replace one," says Clay J. Berry of the Fair Building, Fort Worth, Texas, where 500 G-E room units have been in use since 1939.

"Maintenance cost has been no factor, and operating cost has been surprisingly low," says E. F. Puls, National City Building, Dallas, Texas.

Owner satisfaction like this is one of the reasons why G-E Personal Weather Control is going into buildings like New York's new Dun and Bradstreet Building...12 Sheraton Hotels...and banks, hospitals, and other structures in many parts of the country.



NEW G-E CENTRAL PLANT SYSTEM for New York City building. The beautiful new 25-story office building at 575 Madison Avenue uses 43 G-E large-space air conditioners. To save ductwork, units are installed on all floors. General contractor: Urs Brothers. Architect: Emery Roth & Sons. Consulting engineer: Rutherford L. Stinard. Air conditioning contractor: Raisler Corp.

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FIGURES OF THE WEEK



TRADERS call their bids on hide futures at New York's Commodity Exchange, Inc.

TENTH OF A SERIES

Making Commodity Prices

One of the facts of life that every schoolboy learns early is that you can't add apples and oranges. It would seem to be even more true when you try to add wheat, rubber, sugar, and steel scrap. But it can be done—and is done regularly.

Adding apples and oranges to make orpies or pranges is a pushover compared to adding up everything that goes into the scattered, heterogeneous pile of rusty metal, bushels of grain, tubs of butter, and tons of what-not that make up the commodities market—especially if you want to come out with one number that gives you some idea of how the prices of the whole pile are behaving. But that is what the statistician does every time he constructs a commodity price index.

- **Market Is Any Place**—The commodities market isn't a place. It isn't even a specific group of places. It is any place where commodities are traded; that can be at organized exchanges, through regular dealers, or in some bar over a couple of drinks. Commodities are real things—though the term "commodities market" and the use that words like wheat, rubber, and onions are put to in the market tend to obscure that fact.

- **Haves and Have-Nots**—Spot, or cash, commodities refer to these items when

they are actually sold by people who have them to people who want them. The people who have them probably only have the receipts to show that they have them in warehouses somewhere and may bring samples of them to the floor of the exchange or wherever the deal is made. And the people who want them for the most part are processors—millers buying grain, tire makers buying rubber, etc. Some speculators buy spot commodities and store them, waiting for market rises, but they are an insignificant minority of the traders in the market.

Those things known as commodities have a couple of other things in common. They are consistent in quality and can be graded in such a way that the name or number of any grade refers to practically the identical quality in every case. In addition, commodities are not perishable over fairly long periods of time. Refrigerated eggs or butter may not last forever, but they keep for months.

- **One Market**—When commodities are traded daily on organized exchanges—as in the case of grain, rubber, sugar, and coffee—every buyer and every seller knows what grades are being turned over all the time and at what prices. Moreover, there's nothing to getting an average price or a closing price for a

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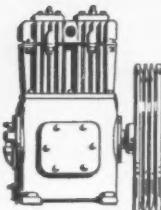
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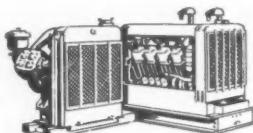
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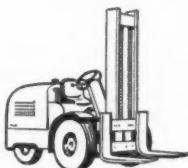
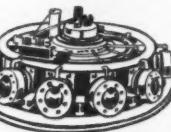
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day's trading in any grade. Some grain, sugar, or other goods may be traded privately by individuals who never get near an exchange. And some commodities are traded on more than one exchange. Due to differences in shipping costs, there will be a variety of prices for the same grade traded at different places. But everyone has access to the prices on all the exchanges all the time, so it's really one market.

• **What to Add?**—The best way to get a complete picture of commodities would be to add in every grade of every commodity traded anywhere in the country. Even if that were possible, it would take so long to compile the information that by the time it was completed it would be six months out of date.

So you compromise; you make a selection of commodities, the most actively traded ones, and you pick one or two grades of each one. When they are added together they give a number that is a pretty good sum of the whole market.

There are many sources for these indexes—which is what these sums are called. Since there are a lot of possible ingredients and since there are good reasons for including or excluding many of them, everybody's index varies a little from the next one.

• **Based on Three**—In order to compensate for these variations, BUSINESS WEEK uses three different indexes as Figures of the Week. The result is a little broader view of commodities than you could get with just one index.

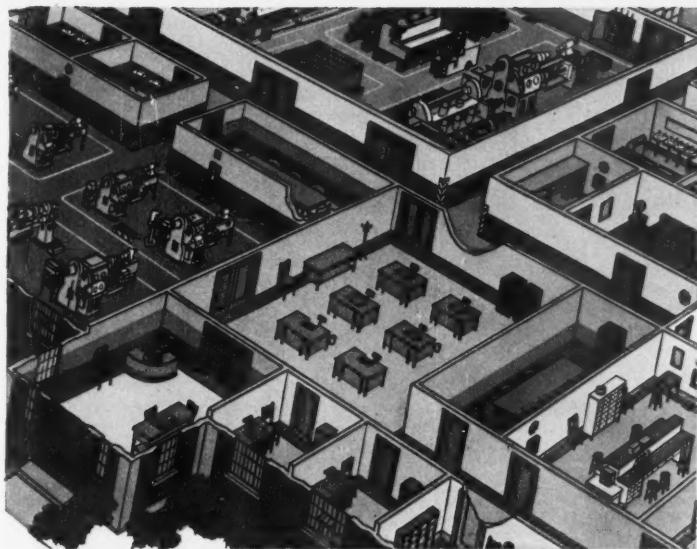
The three indexes used are the daily spot commodities index of Moody's Investors Service, and two put out by the Bureau of Labor Statistics of the Dept. of Labor—industrial raw materials and domestic farm products.

• **Moody's Index**—Moody's adds up 15 commodities—the ones that were the most heavily traded (dollarwise) when it began its computation in the early thirties. The base, called 100 in statistics, was figured on the prices of these 15 commodities on Dec. 31, 1931.

Moody's does more than simply add up the prices each day; it weighs them first. This is something like stacking the cards—it gives some commodities, the more important ones, more importance in the total than others.

Moody's gets prices from commodity brokers and dealers who feed them in every day at the close of business. They cover standard grades at major markets. And where the commodity isn't traded on an organized exchange, they cover average prices of major dealers during the day.

• **Wide Selection**—BLS does substantially the same thing to get its figures, but it uses a little larger selection—28 commodities in its general index. BUSINESS WEEK uses two special indexes,



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inside and out, there's a special line of DULUX Metal Protective paints. They have superb durability . . . color and gloss retention . . . resistance to fungus, moisture, corrosion, checking and cracking.

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If we meet you on the uphill pull...

In this road we live on, there has been many an uphill climb. Today we face another. Rearmament, piled on top of civilian needs, creates a demand for most raw materials that America's productive capacity cannot immediately satisfy. Aluminum is no exception.

But you and we have both climbed hills before.

And some of the most important milestones on this sixty-three-year-long road we live on had little to do with supplying metal. They mark places where Alcoa people went more than halfway to help someone use aluminum more economically . . . or specify it properly . . . or utilize a more available form.

Other milestones—recent ones—mark places where we've gone more than halfway to meet increasing needs for aluminum—yours and Uncle Sam's.

If we meet on the uphill pull, you may say, "But I can't run my machines on co-operation!" We think we can prove that a lot of Alcoa co-operation, combined with the aluminum available, will go a long way. Let us try. ALUMINUM COMPANY OF AMERICA, 2193E Gulf Building, Pittsburgh 19, Pa.



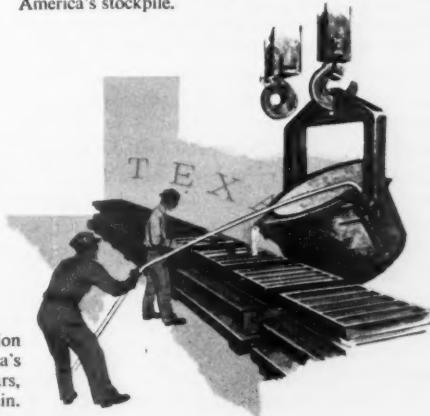
NOV. 29, 1950, Alcoa announced two plans to boost America's production of defense aluminum over 25%, and a week later, "Chiel" Wilson, Alcoa senior vice-president, delivered this first pig of defense aluminum to General Services Administrator Jess Larson for America's stockpile.

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Milliron's Department Store, in Los Angeles, is one of the most modern merchandising units in the world. Crack designers were assigned to put sales effectiveness and operating efficiency into every nook and cranny.

With this objective, they specified floors of Tile-Tex* Asphalt Tile. For Tile-Tex has a property very important to retail interiors. Laid in a solid, single color pattern of marbleized tiles, it enables designers to create a floor that provides an attractive background for merchandise on display . . . without calling attention to itself.

Yet the very fact that Tile-Tex is installed a tile at a time . . . plus an unusually wide range of color . . . offers an almost unlimited choice of patterns, if that's a requirement.

And there are other characteristics . . . important to any floor.

Tile-Tex is extraordinarily durable. You're laying the foundation for many, many years of flooring service when you select these *quality* asphalt tiles.

Maintenance is a simple, economical routine: Daily sweeping to remove loose dirt, periodic washing, water-waxing (if desired).

All of these advantages, plus low installed cost, add up to amazingly low cost-per-square-foot-per-year.

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*REGISTERED TRADEMARK, THE FLINTKOTE COMPANY

Tile-Tex
ASPHALT
FLOORS AND WALLS

which are made up of ingredients of the general index.

• **Reliable for Trends**—Since these indexes were set up, ceiling prices and other factors have resulted in reducing or even temporarily suspending trade in some of these commodities. But for the most part, they are still actively traded every day. So they can be used to get an idea of price movements and trends in the basic raw materials of life and industry—from food, clothing, and shelter to industrial products. There's no question that they cover the most important prices in the economy.

• **Indicator Only**—The important thing to remember is that each is a daily index (although BUSINESS WEEK averages them for each week), and each fluctuates with the daily ups and downs of the markets. And these daily ups and downs are frequent, often violent, and do not necessarily indicate the general trends. But when major turns in commodity prices are in the making, they show up in these indexes fast. The thing to watch is that you're not confusing insignificant day-to-day fluctuations with major movements.

Even where the indexes show a substantial and significant change, you can't use the numbers as an exact measure of that change. A 10% rise in Moody's doesn't mean that the market in general or that business activity or anything else except the index is up exactly 10%.

The next step after a major move is indicated by a daily index is to check individual prices to see which ones are making the big turns. The indicators are strictly indicators. They tell that something is happening—they don't tell how, why, or where.

• **Futures Market**—Another thing spot commodity indexes don't cover is the commodity futures market. This is the buying and selling on the commodity exchanges of commodities for delivery at some future date.

• **Hedging**—Two kinds of trading are carried on in futures: hedging and speculating. Hedging is the means by which a businessman who either uses or produces a commodity minimizes losses (and gains) from changes in price of the commodity to be received, to be shipped, or still growing. It is a way for the producer or processor to stick to his own business of producing or processing a commodity without having to worry about being a professional speculator as well—although hedging involves plenty of trading.

Here's an example—an oversimplified one, but one that shows the basic idea of a hedge. A flour miller has contracted to deliver a certain quantity of flour three months from now. To make the grade of flour called for and to make a profit on it, he needs 1,000 bu. of No. 2 hard winter wheat at today's



May we measure the Cincinnati area against your specific needs...and supply you with a complete, factual (and confidential) report?

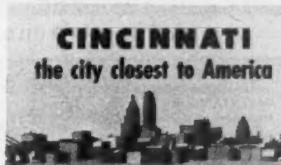
Chances are, you already have some interesting facts about this area on the table. Its central location, for instance. 40% of the nation's active, buying population lives within easy, low-cost reach, in a 400-mile circle. You probably also know how close this area is to raw materials, particularly heavy basics like coal and steel. You may be familiar with Cincinnati's more-than-adequate transportation facilities: eight major trunk rail lines, over a hundred interstate truck lines, and the Ohio River, which serves the entire

Central United States as a main artery of minimum-cost transportation. And undoubtedly you know something of the reputation this area's people have — for being solid and dependable, with Made-In-America ideas.

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price of \$2.40 a bu. He could buy it today, but he doesn't want to tie up that much capital for so long. Or he could wait for three months and buy it then, but by that time the spot price might be higher than \$2.40. Or he could buy a futures contract now for delivery in three months, but in the futures market he has no way of being sure of getting the exact grade of wheat he wants when the time comes.

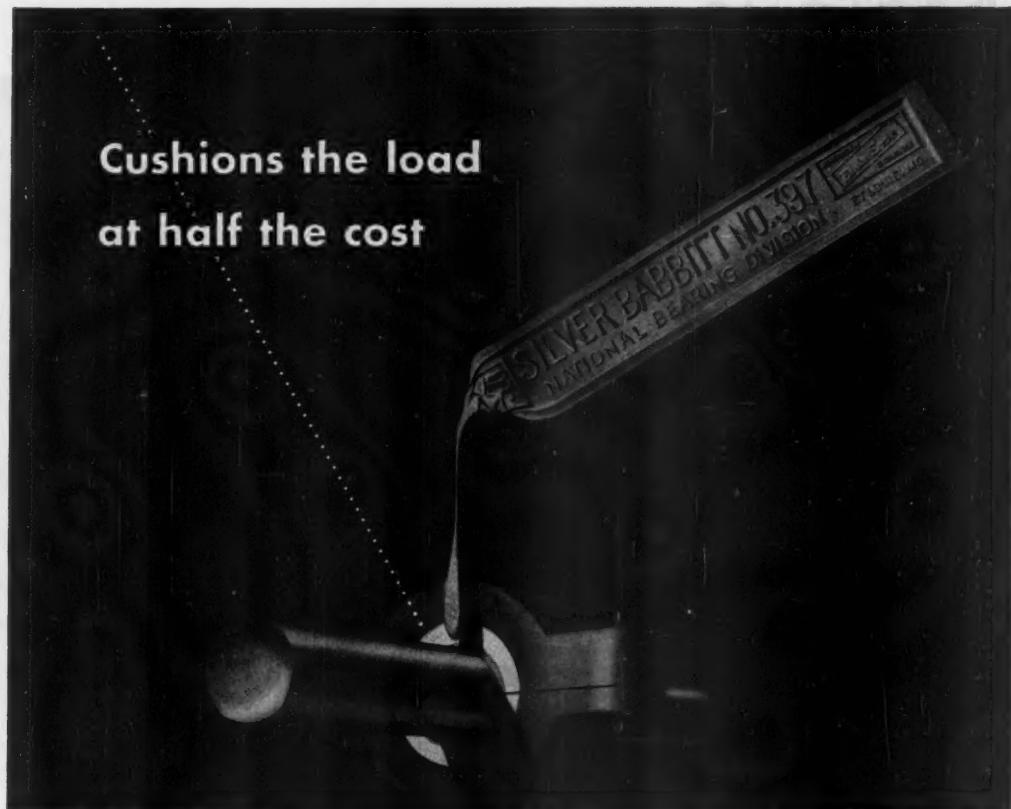
• **Futures for Sale**—So it narrows down to this: The miller must buy a futures contract today, hold it for three months, then sell it and buy, on the spot market, the wheat he is actually going to use. The price he will have to pay on the spot market may be higher than \$2.40. But if that's so, the price he gets for his futures contract should be that much higher, too. He will have covered any loss or at least minimized it. The futures contract is his hedge.

Here's how it works in dollars and cents. The miller buys his futures contract for 1,000 bu. at \$2.30, calling for delivery in, say, six months. In three months, when he needs the wheat, he sells his futures contract for \$2.45 a bu. This puts him ahead by \$150. But by now the spot price of wheat has gone up to \$2.55—a rise that in this case is exactly equal to the increase in futures prices (it is not always so). Thus, when the miller actually buys his No. 2 hard winter, he applies his \$150 gain on the futures deal to his \$150 loss on buying in the spot market and comes out even—at \$2.40 a bu.

• **Speculating**—Speculating is simply buying and selling futures contracts to make profits from the differences in prices at different times. In almost every trade where there's a hedger, there has to be a speculator. But speculators operate to a much greater extent than hedgers. As long as a commodity market can handle the hedges of the largest hedger, then it justifies its existence in economic terms, a leading market expert holds. But, he adds, where it can't handle hedges of the largest producers or users, as in the case of the rubber futures market, then it is little more than a gambling house. Other experts, however, hold that speculation serves enough of a function by eliminating violent price fluctuations to justify its existence without hedging.

• **No Place for the Amateur**—Commodity trading is a tough business, with as many or more angles than any other. And anyone who knows anything about it will admit that it's no place for the amateur—no matter what he knows about some other business. But commodity prices are important to everyone in business. And BUSINESS WEEK's three Figures of the Week give as good a picture of the over-all market as statistics can.

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REGIONS



EVENDALE, OHIO:

The Richest Little Town Fights for Its Life

Little Evendale, Ohio, successfully jumped what is probably its last court-room hurdle to become one of the richest towns in the U. S.—taxwise. This week the first district Court of Appeals in Cincinnati ruled that Evendale, a 2,000-acre suburb two miles north of Cincinnati, has the right to incorporate as a village.

As such, Evendale will be headed into a per capita valuation of something



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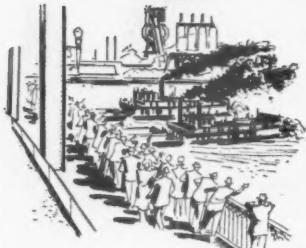
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EVENDALE CORNER will be the unpretentious center of the new incorporated village.

Lockland, and Reading all have attempted to annex Evendale. In 1950 Reading got its first bite of the area. But it missed the big prize: six fat, tax-ripe industries whose assessments would help solve just about any town's financial problems.

They are Electric Auto-Lite Co., General Electric Co., Ford Motor Co., Tennessee Corp. (fertilizer), Drackett Co. (soybean processing), Formica Co. (plastics). Also, there is Opekasit Farm Dairy, a farm management firm.

• **United Opposition**—These industries, led by the Tennessee Corp., and the 300-odd residents of the community banded together to block annexation. They didn't want to be had. Their reason is obvious:

In Lockland the tax rate is \$17.50 a thousand; Reading's is \$20.40; and Lincoln Heights' runs from \$13.40 to \$23.54.

In the Evendale school district (in Sycamore township), tax rates are \$7.78.

• **Town Wins Round I**—Evendale won the first round. After the election last year a lower court decision ordered the area certified as incorporated. Lockland and Reading threw in the towel, but Lincoln Heights, an all-Negro community with its eye on the General Electric and Auto-Lite plants, carried the fight to the Court of Appeals on

Apr. 25. Observers say this week's higher court decision should end the fight over incorporation.

• **Expanding the Valuation**—Right now Evendale's tax valuation is probably less than half of the \$100,000 per capita figure. But when present expansion plans at Formica and GE are finished, the \$100,000 will be conservative.

All in all, Evendale's industrial community will be worth an estimated \$41,250,000 on the tax books (even though assessments are about one-half of true value). That figures out to about \$137.500 a head. GE and Auto-Lite are in the World War II-built Wright Aeronautical Corp. plant. Auto-Lite got it after the war, recently sold part of it to GE. With an expansion program estimated at \$50-million already under way, GE will make the Evendale site headquarters for its gas turbine aircraft engine division. It also expects to use Evendale to develop atomic-powered aircraft under a contract signed recently with the Air Force.

The Ford plant is a \$500,000 new parts depot. Tennessee Corp. has its fertilizer plant there. Drackett Co. processes soybeans. Formica (laminated plastics) has completed a \$1-million wing of a plant that eventually will cost about \$7-million.



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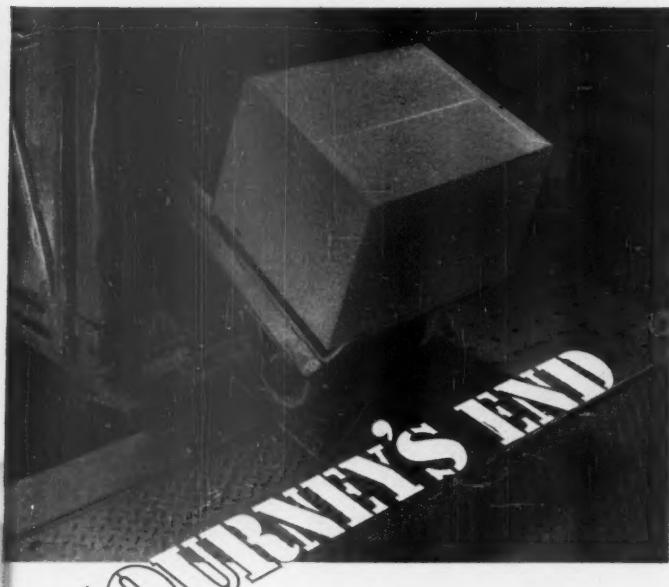
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CIVIL DEFENSE

Sub Rosa Board

Washington's Industrial Evaluation Board is wrapped in mystery. But it's sure to have a lot to do with plant protection.

Probably the most hush-hush operation in Washington today, outside of the military secret services, is the Industry Evaluation Board, set up several months ago with the Commerce Dept. Its chairman is unavailable for comment; its members won't talk. A permanent staff director defines the board's operations as "highly sensitive."

Actually, the board has a threefold mission:

(1) Determine the relative importance of protecting practically everything (plants, facilities, materials, etc., from injury and destruction by enemy activity, espionage, accident, fire, sabotage, etc.). This would indicate that the board will do some of the work performed by the Federal Bureau of Investigation in World War II.

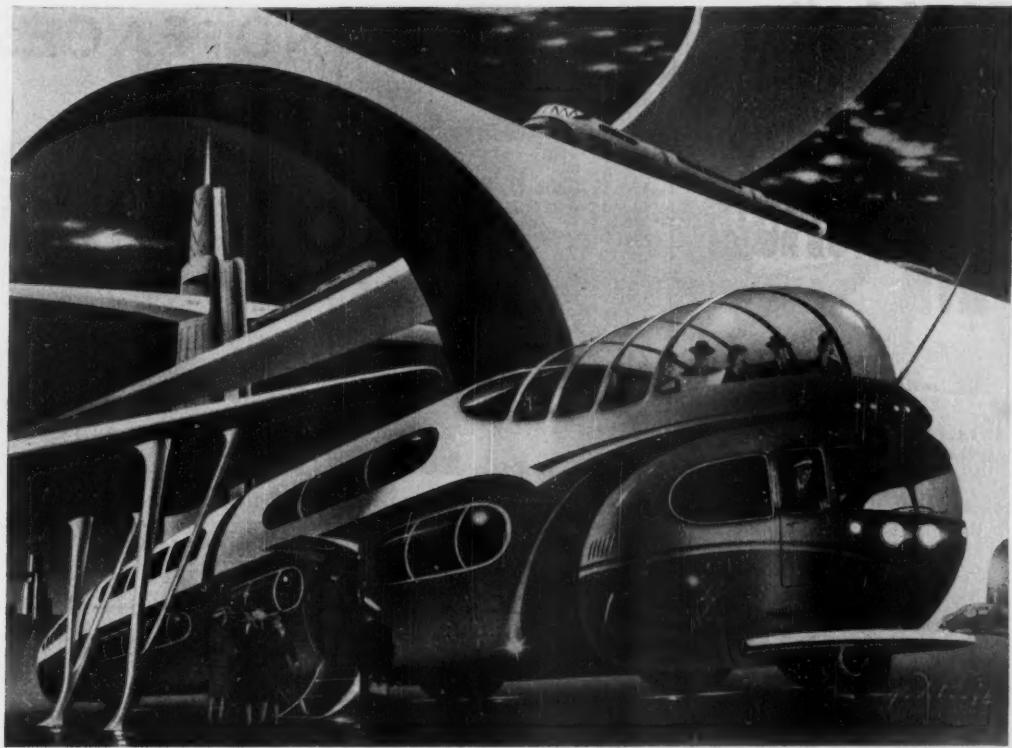
(2) Gather information on security of economic resources.

(3) Assign key facilities to appropriate agencies of the government for security supervision.

• Staff—Dr. Kurt E. Rosinger, chairman of the board, has been with Commerce for about two years and is a specialist in highly classified matters. But it's by looking at the job of Staff Director Robert M. Kerr that you get real clues to the work that the group is doing.

Kerr's office reviews and analyzes the relative importance of individual facilities to the total supply of each essential material, product, or service. It checks into the availability of alternate sources of supply and the replacement time of plant and equipment in event of destruction. Kerr also keeps track of areas where a heavy concentration of defense plants might imperil continued output and promotes plans to shift production in an emergency. Kerr says that, so far as possible, the board gets its information from other government agencies.

Washington sees the board taking over some of the functions originally delegated to the National Security Resources Board, which has been stripped of almost all its functions. Long-range resource planning has been given to a new Materials Policy Commission, headed by William S. Paley; industrial plant protection has been split between the Munitions Board and the Industry Evaluation Board.



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Because of this "years-ahead" research, National Oil Seals give "years-ahead" performance in your products of today. We welcome tough sealing problems. May we help you?

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- Indiana also offers you firm Power, good Transportation, fine Labor, fair Taxes, Livability, and excellent Market outlets.

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NAMES AND FACES



EDMOND WRIGHT, presidential assistant of John Hancock Life Insurance Co. is OPS' executive recruitment officer.



SIDNEY J. WEINBERG, partner in Goldman-Sachs, broker, is now special assistant to Defense Mobilizer Wilson.

These Recruiters Are Bringing . . .



EDWIN T. GIBSON, executive vice-president of General Foods Corp., is now Defense Production Administrator.



HAROLD WESS, former vice-president of R. H. Macy & Co., is now chief of OPS' consumer durable goods division.

Businessmen Like These to Washington

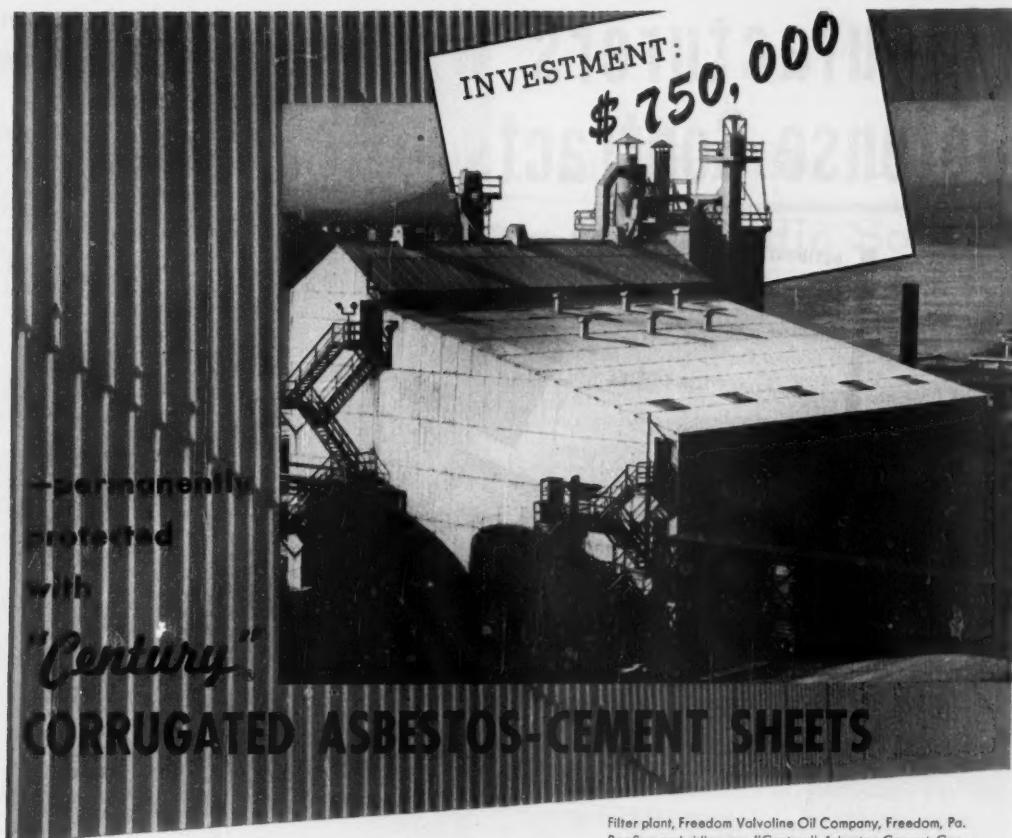
For the first six months after Korea, Administration officials were having a terrible time trying to talk businessmen into coming to Washington to set up mobilization machinery. But since the beginning of the year, they've been able to fill most of the top jobs in mobilization agencies with men who are fresh from the industrial world.

The most conspicuous recent recruit is Edwin T. Gibson (above), executive vice-president of General Foods Corp., who succeeded William H. Harrison

as Defense Production Administrator.

• **Into Pricing**—The striking thing is the way businessmen are moving into jobs in price control as well as production control. During World War II, businessmen stuck pretty much to production problems and left price administration to economists and college professors. That's not so today.

When he tackled the job of price stabilization last fall, DiSalle turned recruiting sergeant. His over-all strategy was to draft men familiar with the ins-



Filter plant, Freedom Valvoline Oil Company, Freedom, Pa.
Roofing and siding are "Century" Asbestos-Cement Corrugated. Erection Contractors: Elwin G. Smith & Company.

THIS modern filter plant of the Freedom Valvoline Oil Company, Freedom, Pa. is typical of the many progressive industrial plants throughout the nation where "Century" Corrugated Asbestos-Cement Sheets have been used for both roofing and siding.

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fastened in place with a minimum of labor.

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Whatever your building plans—new construction, modernization, expansion—get the cost-saving story of "Century" Corrugated Asbestos-Cement Sheets. We'll gladly send complete data on request.



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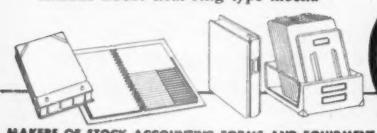
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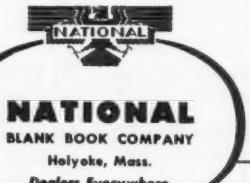
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“. . . One businessman ‘convert’ in Washington attracts another . . .”

BUSINESSMEN IN WASHINGTON
starts on p. 76

and outs of the industries that would be hardest hit by price regulations. That meant drafting the cream of the businessmen in those fields.

Assisted by Defense Mobilizer Charles Wilson, he sent out a call for help to 163 hand-picked companies. Working with him were Edmond Wright (picture, page 76), presidential assistant of John Hancock Mutual Life Insurance Co., Boston, and Sidney Weinberg (picture, page 76), partner in the New York brokerage house of Goldman-Sachs and Wilson's right-hand man.

• **The Hard Way**—Executives who were tapped had to choose between a plush office and fat salary check, on the one hand, and a makeshift office in Temporary E Building and a skimpy paycheck, on the other.

At first, most of them said no. But what was once just a trickle of top industry people coming into Washington has become, over the last month, a small flood. From a fair-sized pool of business leaders who are offering their services, DiSalle has selected eight commodity division chiefs, some 30 commodity branch chiefs, and about 100 second-liners who handle price regulation details.

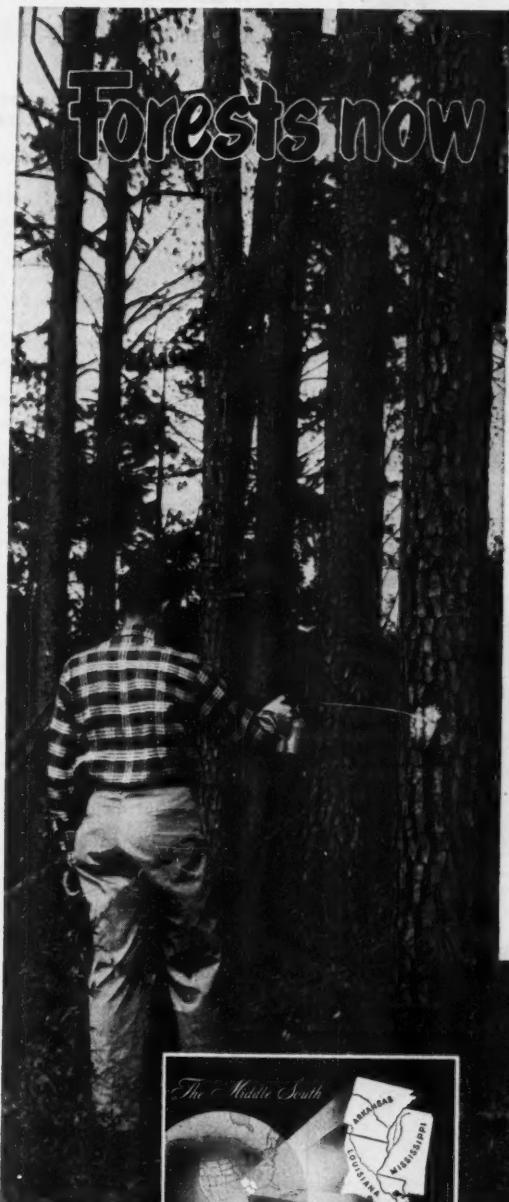
• **Hard to Tell Why**—There's no widely accepted explanation of the recent response to DiSalle's original call. You can say that one “convert” to Washington attracts another. Or you can take the answer one businessman-turned-price-chief gives: “During OPA days we fought controls in our industry tooth and nail. But now we've accepted the probability that only government can begin to stem inflation. And since the policy is made industry-by-industry, we might as well have a hand in that policy, getting in on the ground level.” Or DiSalle himself will tell you: “Businessmen have accepted the fact that the battle against inflation is their battle. They're doing a patriotic job.”

• **Pricing Roster**—The OPS roster is pretty impressive. For division chiefs you have:

- Transportation, public utilities, and fuel—Richard L. Bowditch, president of the Sprague Steamship Co. of Boston; board chairman of imperial Smokeless Coal Co., W. Va.

- Industrial materials and manufactured goods—Murray D. Smith, president of the Western United Gas & Electric Co., Aurora, Ill.

- Food and restaurant division—



Forests now ...and for the future in the Middle South

Forests always have been a major economic factor in the Middle South. Forest industries of Arkansas, Louisiana and Mississippi employ 130 thousand people with a yearly payroll of 237 million dollars. Value of annual production—up 324% over 1939—is well above a billion dollars. Other millions are paid to farmers, cutters and haulers.

Foundations of this thriving Middle South industry were well laid by leaders in lumber, pulp, paper, furniture and the newer wood-cellulose fields. Their search for new products, improvement of old products and forest conservation measures assure that wood industries will remain permanent assets, still adding to the stable economy of this area.

Farsighted forest men set out almost 50 years ago to prove that replanting could keep pace with use. Now reforestation practices assure annually replaceable resources from the Middle South's 51 million acres of forests.

Today, forest companies replant at the rate of 50 million seedlings a year. Seedlings are given to farmers and youth groups in the industry's extensive program of reforestation and timber management.

This long term planning is an outstanding example of business enterprise and initiative at work. It reflects *industry's confidence in the future of the Middle South* and creates growing markets for a wide range of Middle South businesses.

Investigate the economic advantages of the Middle South, where you, too, will find a world of opportunity to grow and prosper.



For further information write

THE MIDDLE SOUTH

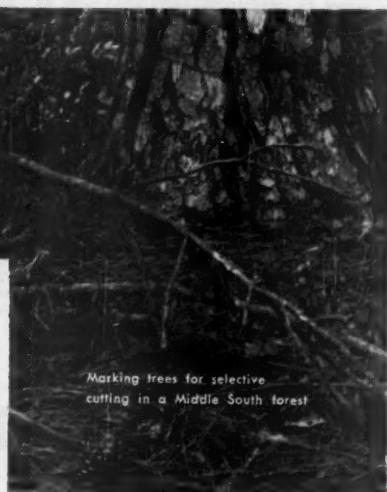
Area Office, 211 INTERNATIONAL TRADE MART, New Orleans, Louisiana or
any of these business-managed, tax-paying electric and gas service companies:

ARKANSAS POWER & LIGHT COMPANY
Pine Bluff, Ark.

MISSISSIPPI POWER & LIGHT COMPANY
Jackson 113, Miss.

LOUISIANA POWER & LIGHT COMPANY
New Orleans 14, La.

NEW ORLEANS PUBLIC SERVICE INC.
New Orleans 9, La.



Marking trees for selective
cutting in a Middle South forest



Anderson Ranch Dam—highest earth-fill dam in the world.

GARDNER-DENVER helps plug the gaps as America still moves WESTWARD

America's growing West needs more electricity to power its industry—more water to irrigate its farmland. One of the big projects that's helping to meet these demands is a series of dams on the Boise River—Arrowrock Dam, Anderson Ranch Dam and Lucky Peak Dam.

On rugged construction jobs such as these, you'll find dam builders often choose Gardner-Denver equipment. For they know from past experience that Gardner-Denver Compressors, Pumps, Rock Drills and other pneumatic equipment deliver peak performance under Herculean conditions—dependably and without coddling. For further information, write Gardner-Denver Company, Quincy, Illinois.

SINCE 1859

GARDNER-DENVER

THE QUALITY LEADER IN COMPRESSORS, PUMPS AND ROCK DRILLS

"... Washington's working climate breeds ulcers . . ."

BUSINESSMEN IN WASHINGTON Starts on p. 76

John B. Hutson, president of Tobacco Associates, Inc., Washington, D. C.

- Consumer durable goods—Harold Wess (picture, page 76), former vice-president of R. H. Macy & Co., N. Y.

- Rubber, chemicals and drugs—Thomas McCormick, sales director of Grasselli Chemicals Dept., E. I. du Pont de Nemours & Co., Wilmington, Del.

- Consumer soft goods—Joseph N. Kallick, merchandise manager, Spiegel, Inc., Chicago.

- Forest products—John D. Mylrea, treasurer and director of the Mosinee Paper Mills Co., of Mosinee, Wis.

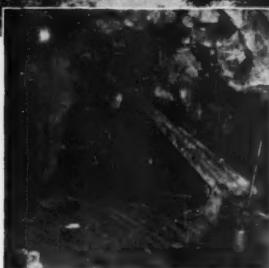
- Exports and imports—Max Feinberg, general counsel of the National Institute of Cleaning and Dyeing.

- **Lengthening List**—The roster of branch chiefs and aides—the men who channel and adapt general industry directives to particular industries—is also full of business recruits now.

The list includes such men as: Max Schlossberg (metals), consultant president of Max Schlossberg Co. and Bay Steel Corp. of Chicago; Emerson Brown (food and restaurant), presidential assistant, Francis H. Leggett & Co., Premier Foods; Sam Mann Ewing (metals), president, Youngstown Steel & Alloy Co.; Norman Cruever (forest products), president, Cruever Door Co.; Frank Malone (utilities), assistant vice-president, American Tel. & Tel.; Dicksons Stauffer (soft goods), vice-president of International Shoe Co.; Morton Baum (men's and boy's apparel, soft goods), executive vice-president, Hickey-Freeman Co., N. Y.

- **Room for More**—It's a long list, but OPS is still hunting for businessmen to fill empty slots. OPS chiefs agree that if you're called, you should remember that (1) Washington's working climate breeds ulcers; (2) salaries range between \$8,500 and \$14,000; (3) you don't usually take your family along (even DiSalle hasn't) because the job is temporary; and (4) you may lose a few friends in industry and in your old company.

On this last, OPS has a rule of thumb: If a former competitor or associate wants price relief, you should let someone else handle his case. And to ease businessmen into their new jobs, OPS runs a training course that includes meetings seven times monthly. The training course covers everything from the techniques of issuing regulations to the actual office layout of Temporary E.



Gardner-Denver equipment drilling in the Lucky Peak Dam diversion tunnel.



Gardner-Denver Compressors supplying compressed air for the Lucky Peak Dam.

66
 Better say YES to question 10
 unless you can say NO to questions
 3 through 9!

1
 2
 3
 4
 5
 6
 7
 8
 9

Do you know how many separate writings you require to get your orders shipped and billed?.....

Yes No

Have you investigated recently to see if writings are being made which can be eliminated?.....

Yes No

Are the orders sent in by your branch offices or salesmen rewritten in your office?.....

Yes No

Are shipping addresses retyped on your bills of lading?.....

Yes No

Are these same addresses again rewritten on your tags and labels?.....

Yes No

Are your invoices written separately from your shipping orders?.....

Yes No

When a partial shipment is made do you write a new shipping order to cover items back-ordered?.....

Yes No

Do you write a new set of billing copies covering each back order shipment?.....

Yes No

Do you post each individual invoice to your accounts receivable ledger?.....

Yes No

...SAY EMINENT BUSINESS
 EXPERTS!



DITTO, Incorporated

656 S. Oakley Blvd., Chicago 12, Ill.

10
DITTO

TRADE MARK REG. U. S. PAT. OFF.

Would you like us to send you folders which illustrate how you can eliminate all retyping, on original and back orders, eliminate posting to accounts receivable?..... Yes No

If answer is "Yes", fill in and mail to:

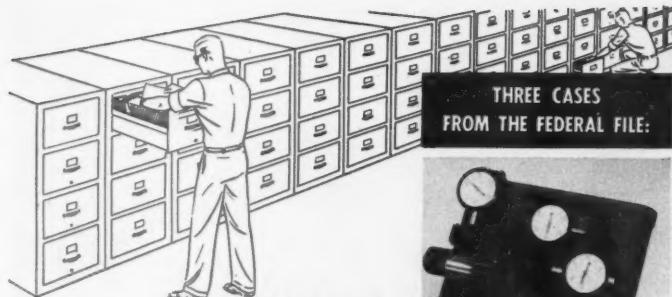
Ditto, Inc., 656 S. Oakley Blvd., Chicago 12, Ill.

Name _____

Firm _____ Title _____

Address _____

City _____ Zone _____ State _____



OVER 20,000 GAGE DESIGNS

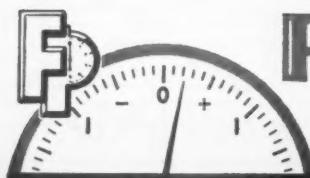
READY TO SERVE YOUR EVERY DIMENSIONAL GAGING NEED

Why start from scratch when you have a gaging problem? Undoubtedly we can pull from the file a gage design that has already proved itself on a job similar to yours. Here's a fund of practical gaging knowledge which can't be equalled anywhere in the world . . . and it's ready to serve you.

Look at the PLUS values in Federal-designed gages:

- Federal gives you whatever gaging system you need: mechanical, air, electronic, or electrical.
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- Federal plans the gage to give you positive size indications — beyond the shadow of a doubt.
- Federal gives you gages that show up dimensional trends so you can readjust your machines to prevent scrap before it's produced.

Take advantage of our 20,000 Gage Designs. Make Federal your source for all types of dimensional gages. Let us estimate on your next gaging problem. Send blueprints to **FEDERAL PRODUCTS CORPORATION**, 125 Eddy Street, Providence 1, R. I.



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Largest manufacturer devoted exclusively
to designing and manufacturing all types of
DIMENSIONAL INDICATING GAGES.

COMMODITIES

Shrinking Steel

Warehouse stocks are only 30%-40% of normal. Some relief is in sight on carbon steel but not on alloy or stainless.

The half-million firms that depend on steel warehouses for all or part of their steel supplies got bad news last week.

Warehouse stocks are down to 30%-40% of the September, 1949, "normal"; and there is little likelihood of any marked improvement in supplies until well into 1952.

That was the sad situation pictured by experts at the 42nd annual meeting of the American Steel Warehouse Assn. in Chicago.

What makes the picture worse is the fact that warehouse inventories are not balanced; a lot of the stuff on hand is composed of slow-moving items; wanted articles are practically on a hand-to-mouth basis.

• Some Blue Sky—About the only encouraging note sounded by Walter S. Doxsey, association president, concerned future supplies of carbon steel. In June National Production Authority regulations provide that warehouses shall receive at least 85% of their base tonnage to fill both defense and consumer needs. The base period for figuring this tonnage is the first nine months of 1950 (BW-Mar. 24'51, p36).

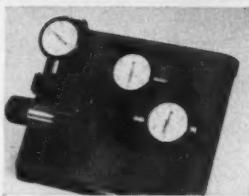
"So in many respects, warehouses are the most favored of all steel mill customers under these regulations," Doxsey observed.

But the present pinch will continue unabated in alloy and stainless steel. These are almost unobtainable for consumer needs. And this situation is going to continue until expanding steel production catches up with demand.

Here is the warehouse steel picture by regions:

Eastern Seaboard: Inventories are about one-third normal, according to Lester Brion, president of Peter A. Frasse & Co., Inc., of New York. All alloy and stainless steel is sold on DO's; only 15% of carbon steel sales are so covered, but this figure will increase as defense orders are placed. Imported steel has had no substantial effect yet. New Eastern steel mills, serving as a magnet for new industries, make the long-term outlook bright for steel warehouses in the east.

Central States: Warehouses have about 40% normal inventories, said Harold B. Ressler, Chicago, first vice-



Typical Special Gage designed and built by Federal for major manufacturer of transmissions. Checks squareness of end face of gear to hub, diameter of hub, and thickness of gear.



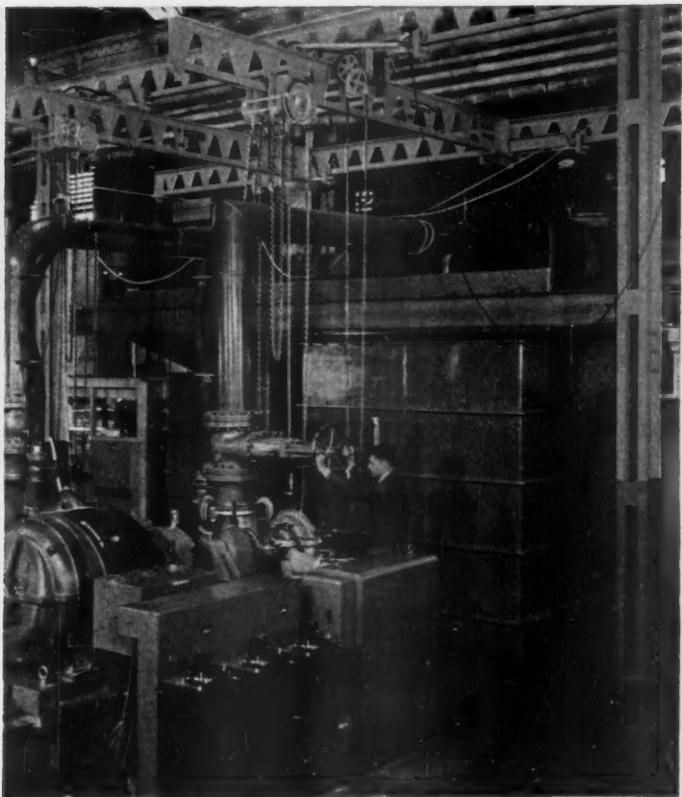
Federal Gage for checking wall thickness throughout height of beer bottle. Single Indicator with mirror above it checks outside diameter of bottle.



Automatic Sorting Gage designed and manufactured by Federal for inspecting depth of small dies . . . sorts into two O.K. and two reject categories.

Pittsburgh COLOR DYNAMICS

is used by
Allis-Chalmers
to make
Pump-Testing
More Efficient



One of the world's largest makers of power machinery scientifically utilizes energy in color to make working conditions safer and more pleasant

THE many ways in which workers and management alike benefit by the use of Pittsburgh COLOR DYNAMICS are again demonstrated in the pump test department of the Allis-Chalmers Manufacturing Company, of Milwaukee, Wis. This organization is one of the world's greatest producers of agricultural, industrial and electrical power machinery.

● **Allis-Chalmers'** satisfactory experiences with COLOR DYNAMICS is best summarized in this comment by Carl E. Meyer, manager of the Department of Buildings and Properties:

● "Our pump test floor is just one example of how Allis-Chalmers is making use of the *energy in color* in various of its plant areas to help promote greater efficiency as well as to make working conditions better and safer. With *focal* and *eye-rest* colors

on walls we believe that we have lessened eye strain for employees who are almost continuously engaged in reading automatic recording instruments. We have also used *morale-building* colors in various areas to provide more attractive surroundings that improve the worker's attitude toward his task.

● "We have marked accurately all control and hazard areas in order to lessen the danger of accidents. We have also used a distinctive set of color markings on containers that hold hazardous materials as well as pipe-markings to distinguish carriers of various kinds of liquids.

● "As a result of this painting, workers take greater pride in their surroundings. They keep their working areas cleaner, thus simplifying housekeeping problems."

● **Why not try COLOR DYNAMICS** in your plant—on a machine or two, or in one department—and see the difference it makes?

Here's How You Can Get A Color Engineering Study—FREE!

● **For a complete analysis** of Pittsburgh COLOR DYNAMICS and how it works, write for a FREE copy of our booklet explaining the painting system. Or better still, ask us to make a scientific color engineering study of your plant for you free and without obligation. There's a trained color expert at each of our 75 warehouses. Call your nearest Pittsburgh Plate Glass Company branch and arrange to have a representative see you at your convenience. Or mail the coupon below.

Mail this coupon for FREE BOOKLET!

Pittsburgh Plate Glass Co., Paint Div.,
Department EW-31, Pittsburgh 22, Pa.

Please send me a FREE copy of your new revised and enlarged booklet, "Color Dynamics In Industry."

Please have your representative call for a Color Dynamics Survey of our property without obligation on our part.



Name _____

Street _____

City _____ County _____ State _____



PITTSBURGH PAINTS

PAINTS • GLASS • CHEMICALS • BRUSHES • PLASTICS

PITTSBURGH PLATE GLASS COMPANY



"Visioneering"—unlimited

Turning ideas into sales through the modern magic of molding rubber is the specialty of Goodyear's St. Marys, Ohio Plant. There the vision of designers is combined with the rubber engineering skill and experience of the G.T.M.—Goodyear Technical Man—in the world's largest plant devoted to the molding and extruding of complete assemblies or components for manufacturers throughout industry.

In this huge plant—soon to become even larger—many thousands of



Leakproof — Sanitary—Easily-inserted Sweet-Seal® Vacuum Bottle stopper designed by Aladdin Engineers and the G.T.M. fits Aladdin Hy-Lo, Quality and Economy Vacuum Bottles—gives excellent, heat-and-cold-retaining seal, keeps bottle contents fresh and sweet. Hot water rises cleanse after use. Won't absorb odors.

*Sweet-Seal—T. M. Aladdin Industries, Inc., Nashville, Tennessee



You can beat—without holding—Revolutionary new Belvedere® Mixing Bowl—with Gripite rubber base, precision-molded by Goodyear, that anchors securely to table and holds bowl at any tilt position without use of hands. Now at better houseware stores.

©Belvedere—T. M. Gripite Corp., Lancaster, Ohio

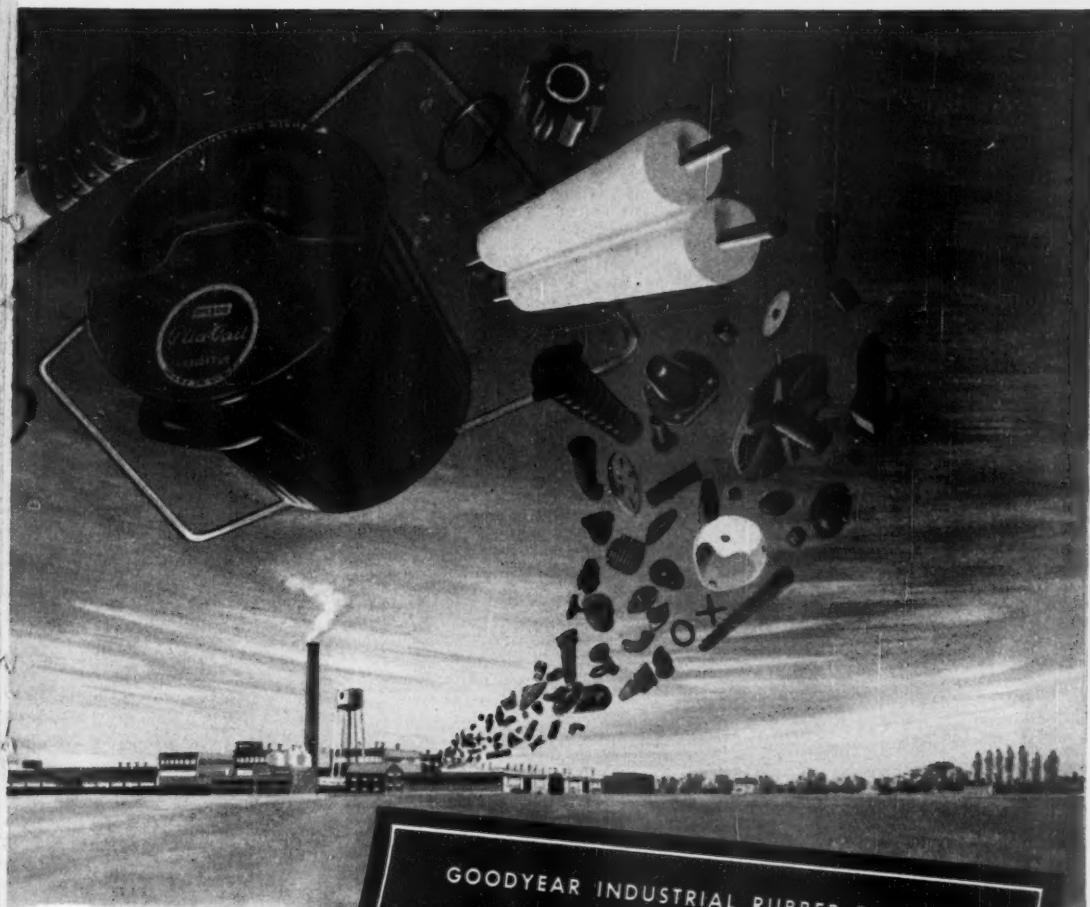


For sports—work—or what have you—Wherever a better grip is important, the new Goodwin® Flange-Wrap Grip—Goodyear produced—is ideal. Easy to apply to sports equipment, hand tools, steering wheels, etc. You'll find these grips on sale in several color designs at Golf Course Pro Shops.

*Goodwin—T. M. Central States Industrial Sales Co., Cleveland, Ohio

separate items are being produced to exacting specifications and in quantities to meet production-line requirements. If sub-assemblies or finished articles of rubber—in any

of its varied forms—can improve your design or build your sales, it will pay you to consult the G.T.M. Write him at Goodyear, St. Marys, Ohio or Goodyear, Akron 16, Ohio.



Quiet—sanitary—animal proof—
The Raymond Loewy Associates-styled Plia-Pail—a quiet-in-the-night garbage pail with a lock-tight cover and a sanitary readily-cleaned interior—is another of the thousands of molded items building sales for Goodyear customers.

©Plia-Pail—T. M. Nesco Inc.,
Chicago, Illinois

GOODYEAR INDUSTRIAL RUBBER PRODUCTS

G-Specified
Rubber Molded to Metal

VIBRATION ISOLATER FOR ENGINES

Typical of the hundreds of parts made for manufacturers, featuring the bonding of specific type of rubber to various metals.

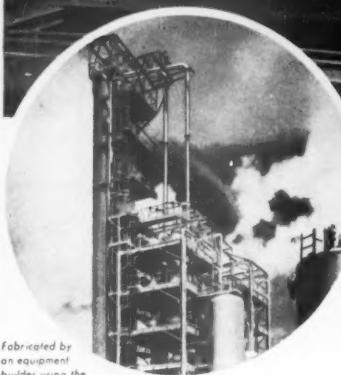
FOR HOSE, FLAT BELTS, V-BELTS, MOLEDED GOODS, PACKING, TANK LINING, RUBBER-COVERED ROLLS built to the world's highest standard of quality. Phone your nearest Goodyear Industrial Rubber Products Distributor.

GOOD YEAR

THE GREATEST NAME IN RUBBER



Ore Carriers ...



Fabricated by
an equipment
builder using the
Lukenomics principle.

... or Alkylation Towers

Whatever your project, it's important! Don't let today's restrictions kidnap efficiency. That's where progressive equipment builders can help. Delivering improved production, despite current conditions, is one of their prime contributions.

An important factor in this is their application of the Lukenomics principle. For Lukenomics combines their experience and that of leading designers and engineers with Lukens' specialized knowledge of materials, their production and application.

Get this extra attention for your project. We'll gladly put you in touch with equipment builders applying the Lukenomics principle. Just write, stating your problem, to Manager, Marketing Service, Lukens Steel Company, 483 Lukens Building, Coatesville, Pa.

Promote steel production generally—speed sale of your scrap.



"... Small manufacturing concerns have been hardest hit . . ."

SHRINKING STEEL starts on p. 82

president of Joseph T. Ryerson & Son, Inc. About 75% of stainless and alloy sales are on DO-rated orders, probably 33½% of carbon steel; these percentages will go up as the defense program is enlarged. Industries hardest hit are paper, chemicals, food processing, and meat packers. Little foreign steel has come in here. Warehouses are able to supply only 10%-15% of inquiries.

South: On the average, warehouse inventories are about 40% of normal, but in some cases they are down to 25%, according to Frank Pidgeon, president, Pidgeon-Thomas Iron Co., Memphis. Incoming shipments are 25% under a year ago, with longer delivery time. About 38% of P-I's orders are on DO's, with no increase expected. Industries hardest hit by shortages are structural steel, plate, and tank fabricators, and makers of such items as steel truck bodies. Imported steel has had some effect in seaport areas on certain types of domestic steels.

West Coast: Inventories are down 70%-80% from a year ago, said Wayne Rising, vice-president and general manager of Ducommun Metals & Supply Co., Los Angeles. Incoming shipments are up, but still far below demand. DO orders amount to 25%-30% of steel warehouse business, but will increase. Small manufacturing concerns have been hardest hit; alloy shortages have hindered the aircraft industry. Imported steel has made little impression because of its high price.

• Will CMP Help?—Whether the Controlled Materials Plan will help the steel situation was an open question with warehousemen. As Brion put it, "It will mean a scramble, for nondefense users must list their consumption for each month, rather than for total needs."

Big headache under CMP is the fact that this time, unlike the situation in World War II, normal civilian production (autos, appliances, etc.) is being maintained in addition to military and essential civilian output.

• More Scrap Needed—The American Iron & Steel Institute's scrap committee, headed by Robert W. Wolcott, now is working with the government to make available more than 500,000 tons of scrap scattered through the Pacific Islands; it is also trying to get the Maritime Commission to scrap obsolete World War II vessels and is negotiating with the State Dept. and the Economic Corporation Administration on German scrap.

Mobile Radio Keeps Trucks Rolling-



GE 2-Way Radio

Dispatcher knows instantly when a trailer is empty, talks via radio to driver in cab (above). Radio control of vehicles on the move 40 miles away simplifies scheduling, cuts back-tracking and overtime.

Boosts Volume 20%

To make every mile count, the National Transportation Company equips its cargo trucks with General Electric 2-way radio. Dispatcher and drivers talk instantly with each other when trucks are on the move. Rolling pay loads between Connecticut and New Jersey, these semi-trailers now make more pick-ups with less waste mileage because radio clears the way for quick loading and unloading. Breakdowns are repaired faster with maintenance crews dispatched by radio. Efficiency and pay loads

have increased—over-all volume is up 20%.

Your business, too, can profit by such a radio system if you need tight control over wide area operations. May we talk it over? The coupon below will get action.

MANY INDUSTRIES use G-E mobile radio.
Examples: Steel Mills • Mining • Ranch and Farm Operations • Lumber and Logging • Heavy Construction • Taxi, Bus and Trucking Fleets • Petroleum and natural gas—drilling, pipelining, distribution.

HOW MUCH IS Instant Communication WORTH TO YOUR BUSINESS?

CIVIL DEFENSE

Your community has a communication network for use in emergencies. You can tie into this net at little cost. For details, ask the G-E Electronics Department office near you.



General Electric Company, Section 151-12
Electronics Park, Syracuse, New York
Please send me FREE INFORMATION KIT on
General Electric 2-way radio equipment.

NAME

TYPE OF BUSINESS

ADDRESS

CITY STATE

GENERAL ELECTRIC

SMALL BUSINESS



1 IT HAS TO BE RIGHT. Final inspection is a critical moment in turning out Josten school and college class rings. Designs are intricate; there can be no flaws.



2 ARTIST who designs the ring gets general instructions, dreams up the fine details.



4 PRESSMAN takes a ring from the die press. This one's a high school ring.

Smoothing Out Class Ring Sales

In thousands of high schools and colleges over the country, senior students this week are proudly displaying class rings—emblems of the fact that they are members of the 1951 graduating class of Such-and-Such School.

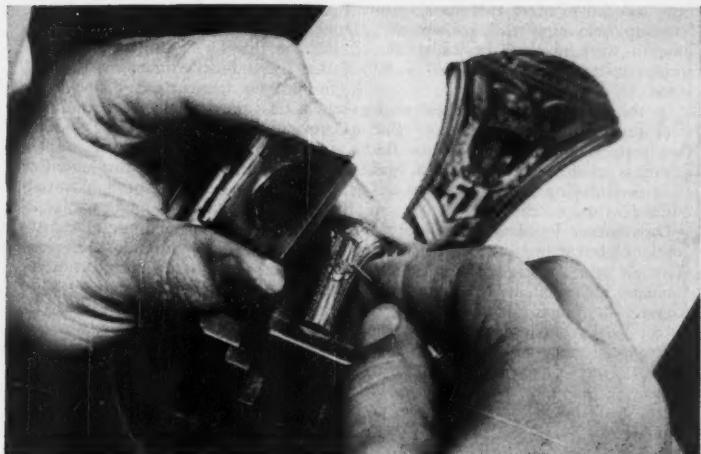
Chances are better than one in three that these rings were made by Josten Mfg. Co., Owatonna, Minn. For Josten numbers among its customers better than 8,000 of the 23,000 schools

and colleges that annually buy class rings. Its annual output: 300,000 rings, plus 4-million or more graduation invitations, 150,000 school yearbooks, 13,300,000 calling cards.

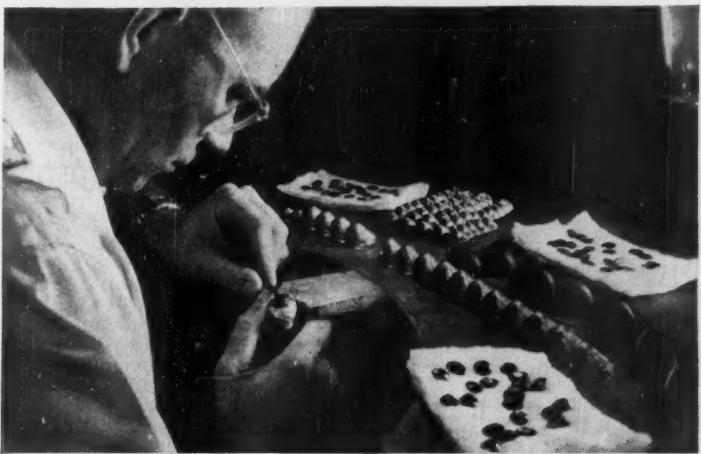
• **Successful**—Whether Josten is the biggest in its field can't be determined for a certainty; manufacturers in this business don't issue statements that permit comparisons. But there's little question that it's one of the most suc-

cessful. Annual sales approximate \$7-million, net before taxes \$750,000. And it provides a good living for 550 craftsmen and women, 120 salesmen, and a handful of top Josten executives who are headed by 53-year-old Daniel C. Gainey (cover).

In the nearly 30 years that he has sparked Josten's operations (for the last two decades as president and principal owner), Gainey has had a large hand



3 DIE CUTTER carves the design on soft steel, which is later heat-hardened. This hardened "hub" is then pressed into a similar die.



5 STONE SETTER must do his work well, if ring is to keep its pristine look with all the gems in place. Setter's trade is an ancient one.

in completely altering the complexion of the business. Through shrewd salesmanship and management, seasonal peaks and valleys of sales and production have been smoothed out, merchandise quality sharply improved.

• **Seasonal**—Back in the 1920's, and even into the 1930's, class rings were a 90-day business. Almost all seniors wanted their rings just in June—and they didn't start thinking about ordering them till late spring. Gainey set out to change their buying habits.

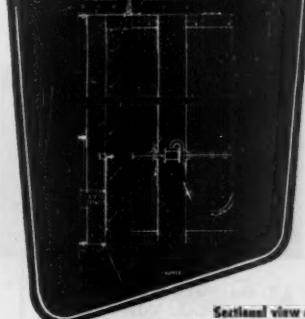
One highly successful method was to offer the students a budget plan for

purchasing rings. By ordering five or six months in advance of delivery date, they had time to earn the money for the rings. As an added inducement, Josten asked for only a \$1 deposit when the ring was ordered, but credited each student with a \$1.50 payment.

That 50¢ gift looked good to the students. Josten more than got it back by increased efficiency in scheduling factory production. In some cases, students were induced to order in the last half of their junior year.

• **No Layoffs**—Today, sales inducements are no longer necessary. High

IF IT'S GOOD ENOUGH FOR
ULTRA-FINE
RADIOACTIVE DUSTS
IT'S IDEAL FOR YOUR
MOST HAZARDOUS JOBS



Sectional view of
MIKRO-COLLECTOR showing felt filter
bags and reverse jet cleaning ring.

The MIKRO-COLLECTOR* has virtually no rival in the collection of radioactive dusts of ultra-fine particle size. Its installations for this purpose alone, during the past year, have a combined capacity of more than 100,000 cfm.

We can show you data which should leave no doubt in your mind that a MIKRO-COLLECTOR can handle your job economically and efficiently, if it falls in either of these classifications:

- 1—*Elimination of atmospheric pollution, regardless of the dangerous or noxious quality of the dust, or the minute size of the dust particles.*

- 2—*Full recovery of a valuable product.*

This is made possible by the MIKRO-COLLECTOR's pressed felt filter medium and its Hersey reverse-jet cleaning ring, which assure the very highest possible dust recovery.

10 Reasons

why a MIKRO-COLLECTOR will best help you win a war with Dust

1. Phenomenal Filter Rates
2. Highest possible recovery of solids
3. Require less filter surface, floor area
4. Extreme simplicity, low upkeep, minimum attention
5. Selected wool felt filtering medium
6. Reduced number of filter bags; quick changeover
7. Continuous, fully automatic operation
8. Uniform air flow
9. Easy handling of dust loads, damp or dry
10. Thorough survey and diagnosis of dust problem

SEND FOR—actual sample of felt used in MIKRO-COLLECTOR.

*Patents applied for by H. J. Hersey, Jr.
and Pulverizing Machinery Company

PULVERIZING MACHINERY COMPANY
37 Chatham Road Summit, New Jersey



NEW LOW COST Roof Life



AT the Harold Quinlan Cut Stone, Ltd., Ville La Salle, Quebec—C. J. Bellamy of Tremco inspected a built up roof 300 feet long that was badly dried out and the roof felts in need of resaturation.

Imagine the cost of hauling roofing material over 60 feet to the roof and then at least 100 feet across the roof. C. J. Bellamy pointed out to Harold Quinlan, the owner of the company, that Tremco could save time and money by its method of **PUMPING** the roof resaturating material from the ground to the point of application.



C. J. Bellamy

Contractor J. P. Simoneau, Ltd. of Verdun was secured and the job begun. Both Messrs. Quinlan and Simoneau were delighted with the speed of the job, the savings, and quality of the finished job.

Again Tremco proved its methods are the most effective and the lowest cost methods for preserving roofs. You can't buy experience by the barrel. There's a Tremco Man near you. Let the Tremco Man give you a survey of your roof.

UM-1004



Tremco Pump

TREMCO

Products and Methods
for Building Maintenance

THE TREMCO MANUFACTURING CO.
CLEVELAND, OHIO

schools and colleges have been educated to order rings six months to a year in advance. Production peaks have been reduced to manageable size. Josten employees now work perhaps 43½ hours a week in the late winter and spring, instead of the old 56 or 60 hours.

In the summer months, their work week drops to about 37½ hours. But they prefer some slack in summer—the fishing is good around Owatonna, and there is gardening to do. Seasonal layoffs are a thing of the past.

• **Distribution Problem**—Some not-so-gentle club-swinging was involved in Gainey's efforts to give high school graduates higher quality rings. In most communities, such rings are supplied by the local retail jeweler. His selling price usually ran about \$4 per ring above his buying price, quite a sum for students on a purchase totaling from \$11.50 to \$18.00.

But the jeweler had to charge this markup in order to cover his costs—which included rings ordered but never paid for.

Josten salesmen made an offer to these jewelers: "Let Josten take over the job of selling the rings. Then we will deliver them through you, and you can get \$1 a ring profit. You will have no expense, no profit tied up in undelivered rings. And the students will be able to get a much higher quality ring."

Most jewelers accepted; Josten craftsmanship and quality were well known. Those who rebelled were warned that the alternative would be a campaign for direct sales to the schools on Josten's part. In most cases, the retail jeweler acquiesced.

"We didn't like to do that," Gainey says. "But it was the only way to give students the most ring for the money."

In all except large cities, Josten's sales are made through retail channels in this fashion. That applies to sales of graduation announcements, as well as of class rings.

• **Long Term**—The method has had another benefit for the retail jeweler. It has taught him that class ring sales, instead of being a one-shot profit item, are a means of selling young people on fine jewelry generally. The result often is continuing sales to these people as they grow older.

To Gainey and his staff, quality is a fetish. Recently he was told by a representative of a college graduation class, "We received 21 bids on our rings; I thought you'd like to know that yours is one of the three now up for final consideration, even though yours cost more."

Gainey's reply was instantaneous: "Young man, if you aren't convinced that our ring is \$2 better than the other rings, we've failed; and my advice

to you is to buy the less-expensive ring."

Josten got the order.

• **Ex-Coach**—Happenstance alone accounts for Josten's location in Owatonna, a town of 11,000 some 70 miles south of the Twin Cities. Otto H. Josten had a small wholesale watch repair business there, made a few high school class rings on the side. In 1922 Gainey joined the firm, quitting a \$200-a-month high school coaching job to work for Josten at \$100 a month. Sports coaching offered no substantial future, to Gainey's way of thinking.

Gainey's flair for selling soon produced substantial high school class ring orders, and in no time Josten had more business than it could handle. The company began recruiting workers. It found Owatonna a fertile field; workers of German, Scandinavian, Bohemian extraction made excellent artisans. Night training classes were started to develop skilled workers.

All but one of Josten's craftsmen are company-trained. Die cutters, stone setters, tool makers, finishers, even designers are products of Josten's training system.

One result of Josten's system and small-town location has been stability in the working force. Ten years ago the company had 250 production workers, 75 salesmen. Today 133 of those workers, 41 of the salesmen still are with the company.

• **Technique**—High school rings comprise the biggest part of the company's sales. These are stamped out of a single flat die, rolled into circular shape and the ends induction-brazed. College rings, costing three times as much (\$32 to \$55, with some running as high as \$80, tax excluded), are made in two semicircular sections, which are brazed together.

Josten went into the graduation announcement business in 1932 as a natural corollary of the class ring business. Last year the company started publishing school yearbooks. This end of the business is growing, soon will require a new plant. And in this, just as in rings, the company faces the problem of needing to change schools' buying habits. For yearbooks traditionally are distributed at the end of the school year—and that means a late spring printing peak. Josten salesmen think they can alter this—how, they aren't saying. Why tell competitors?

• **Outside Work**—Gainey himself devotes about half his time to Josten Mfg. Co. "I believe every company of this size or larger should have one top man devoting a major share of his time to public service—and that's what I am doing."

So Gainey keeps busy in a variety of outside activities—as a regent of the University of Minnesota, a post he has held for 12 years; as a director of

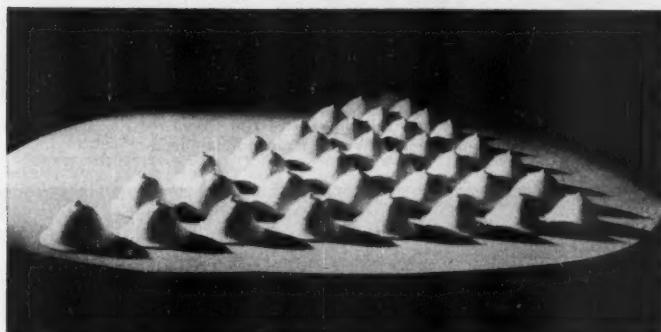
the National Assn. of Manufacturers. He gives the equivalent of two or three months each year to Republican politics, and he runs a 47,000-acre cattle ranch in Arizona and raises fine Arabian horses. Recently he has gone into real estate in a modest way, buying and building six supermarkets, which he leases to chain operators.

Directly or through a trust for his son, Gainey owns better than half the common stock of Josten. Most of the rest is held by other company officers, except for some 10% owned by heirs of Otto Josten and 5% that has gone to close friends of Gainey's.

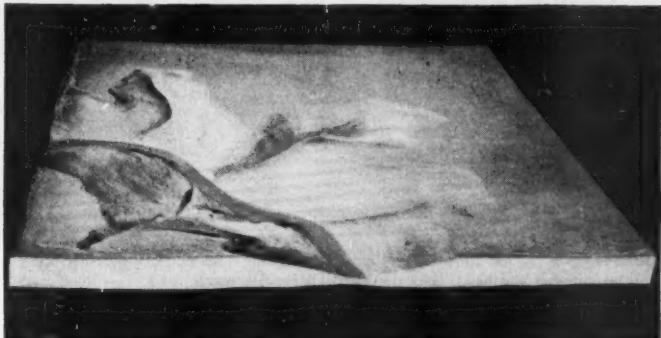
An art fancier, he owns numerous fine paintings and antiques; his com-

pany sponsors national essay contests on beauty and art, gives \$10,000 in scholarships annually through the National Honor Society, which is under the auspices of the National Assn. of Secondary School Principals.

• **Close Tab**—But for all his outside activities, Gainey keeps a close tab on company operations. He still comes up with ideas for ring designs; he watches repeat sales, and if they fall below the normal 85% to 90% level he wants to know why; he sees that Josten maintains a \$1-million inventory of gold for rings (a six-month supply), which is stored in various depositories and gives the company a fat hedge against inflation.



Foam Rubber: From False Front . . .



To Real Army Contour Maps

In times of stress, you have to take your contours where you find them. The word has gone out from Toyad Corp., Latrobe, Pa., that women aren't going to be able to buy its foam rubber falsies any more. It's government orders. The Army's getting them now, in the form of contour maps to study tactical problems. The Navy's using the material, too, for mattresses and pontoon bridges. Toyad, headed by Mrs. M. C. Stetter, started out 12 years ago to make foam rubber toys and advertising novelties. It soon found shoulder pads, falsies, and the like more profitable. The falsies were one of Toyad's best sellers. The Army likes the new maps because they are lighter than the sand and plaster ones used in the last war. And the GI finds that the girls' loss is the soldier's gain: The maps, five feet square, are fine for sleeping on.

LOOK

at your floors . . .



Are they shabby?

Floors which receive heavy traffic become tread-worn and dirt-caked without warning, and then it is an expensive and difficult job to restore their original appearance.

Not only will TORNADO Floor Machine solve this problem, but it will also eliminate its recurrence.

TORNADO Floor Machines provide sufficient brush pressure to:

1. Rapidly uproot all deeply imbedded grease, dirt and grime.
2. Increase the durability of protective coatings to prevent future penetrations of dirt and grime.
3. Create a clean, glistening floor you can be proud of.

Your floors can always look like new. Proper equipment is the answer.

WRITE FOR BULLETIN 583

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Cleans Floors

LET THIS AMAZING
ABRASIVE FLOOR PLATE
HELP YOU!



A.W. ALGRIP Stops Slipping Accidents! Boosts Production! Saves Money and Time!

Want to end costly slipping accidents in your plant and get more production? Investigate unique ALGRIP ABRASIVE Rolled Steel Floor Plate. Made by rolling abrasive grain as an integral part of the upper portion of steel plate, ALGRIP is non-slip, wet or dry, even on steep inclines.



A.W. ALGRIP keeps men and trucks from slipping—even on steep inclines.

There are hundreds of "safety" applications for ALGRIP in industrial and commercial buildings. There's nothing like it to keep men safe on ramps, walkways, catwalks, platforms, etc.



A.W. ALGRIP guards against slipping on elevator floors and sills.

Get complete information now. Ask for a free copy of our data-filled 8-page catalog BB.

There's Never A Slip On A.W. ALGRIP

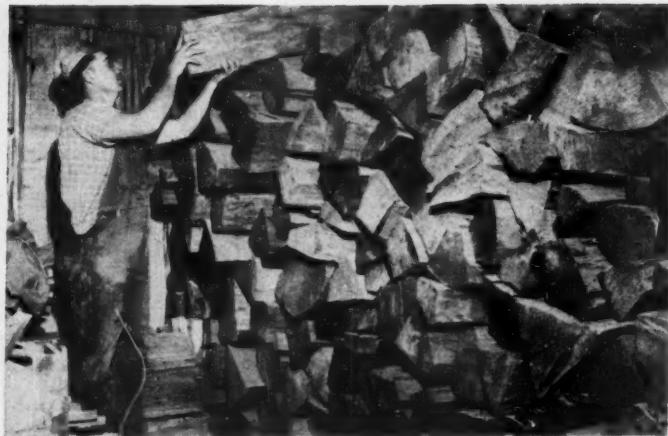
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ABRASIVE
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125 Years of Iron and Steel Making Experience
Other Products: PERMACLAID Stainless Clad Steel • A. W. SUPER-DIAMOND Floor Plate • Plates • Sheets • Strip (Alloy and Special Grades)

SPORT



ARROW SHAFTS are made from carefully selected Port Orford cedar because it's free from knots and the grain is straight. The cedar comes from Oregon.



CRESTING is the old arrow maker's name for painting. An operator dips her brush in brilliant crimsons and blues, gives the shaft a decorative touch.

Fletchers Are Still in Business

The bow and arrow, trusty weapon of ancient times, hasn't entirely lost its glamor for sportsmen. In fact, the demands of modern Robin Hoods keep the 50-odd employees of the Woodcraft Equipment Co., of Independence, Mo., working full time.

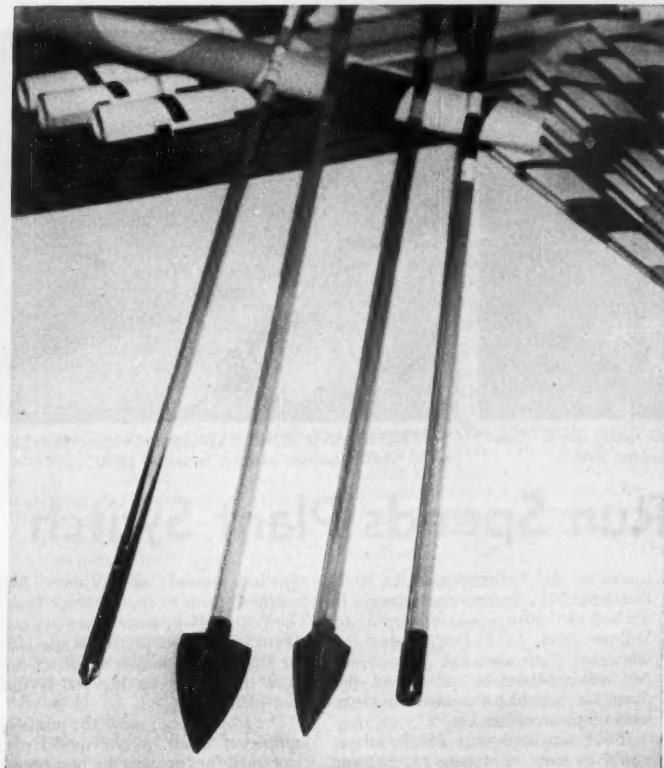
The recent interest in the bow and arrow for actual hunting—both big and small game—has pumped new blood into the industry. Devotees of the sport are usually as philosophic as fishermen:

Even if they come home empty handed, they've had a wonderful time.

Woodcraft set up shop in Independence 27 years ago. It has been turning out archery equipment and accessories ever since. At present, it's making more than 25,000 bows a year, covering all phases of archery—from small ones for small boys up to large models for target archers and hunters. Bows sell for \$12.50 up, depending on the purpose; arrows about \$13 a dozen.



FEATHERS are glued to the shafts one at a time, in a process called "fletching." The feathers help direct arrow, keep it in a straight line.



READY TO SHOOT (left to right) rounded head for target work; double-edged flat point and three-edged hunting head; blunt head for small game.

"Plover Bond is a
visibly better
letterhead paper..."



...this simple test
proved it to me!"

Here's all I had to do—

We had our printer submit proofs of our letterhead on our present paper and on PLOVER BOND. I looked at the two proofs and saw the difference *instantly!* On PLOVER BOND our letterhead took on an entirely new smartness, an added feeling of quality. That's all there was to it—our own test made us lifetime users of PLOVER BOND.

Quality tells in the finish!

PLOVER BOND's exclusive Qualitex finish is produced by Perma-Therm drying, one of many special techniques in the Permanizing Process—a better paper-making method, unduplicated in any other mill and used only by Whiting-Plover Paper Company, Stevens Point, Wisconsin.

A good place to put your 2c in!

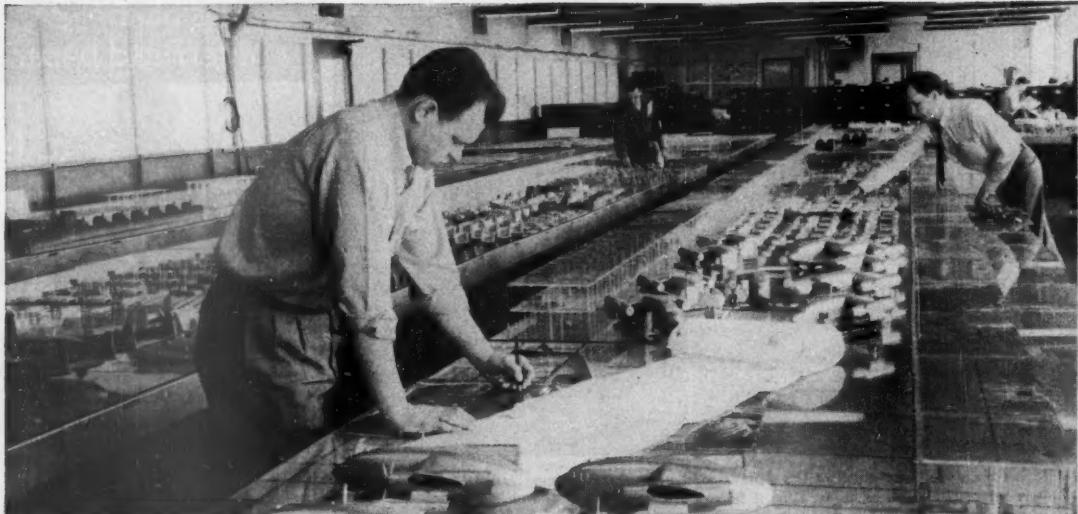
For only about 2¢ a day, the average company can switch from ordinary paper to handsome PLOVER BOND. When obvious quality costs so little, wouldn't you do well to ask your printer about Permanized PLOVER BOND?

Rag Content • Tub Sized • Air Dried

Plover Bond
It's Permanized



PRODUCTION



MEN ARE MASTERS of this three-dimensional model of the 80-acre Willow Run plant, complete with equipment. Scale-model machines

are made of wood and metal. Plant layout blueprints are made direct from plant model.



PLATE with miniatures cemented to it is held upside down. Templates to fit machinery bases are laid over inverted models.



GRID SHEET AND TEMPLATES are laid onto sensitized blueprint paper. Ozalid machine transfers layout to print.

Tiny Willow Run Speeds Plant Switch

Willow Run is such a big plant that it is hard for any engineer to visualize it, hard to see the trees for the wood. When it's conversion time, you need to see both clearly. The pictures on these pages show how Kaiser-Frazer did the trick.

The plant was built to make B-24 bombers during World War II. After the war, K-F converted it into an auto plant. Now it's going back into the old business—partially.

Around the first of the year, K-F

landed an Air Force contract to build Fairchild C-119 Packet cargo carriers. It decided to turn over one-third of Willow Run to C-119 production, scheduled it to start this fall. Since cars will continue to roll out of the plant, the switchback created real problems of plant utilization.

If K-F engineers were 288 ft. tall, it would be easy. But man has not yet learned the trick of adding cubits to his stature. To get the same effect, K-F built a giant three-dimensional,

table-top model of Willow Run, equipped down to the last work bench. The 70-ft. x 35-ft. model gives engineers a Paul Bunyan perspective of the facilities and the 3.5-million sq. ft. of floor space that make up the real Willow Run plant.

The planners can move the miniature equipment about on the model plant floor until they achieve the best production layout. That method is simpler and more accurate than making drawings or templates—and three-dimen-



TO GET PRINTS, equipment models are mounted on glass over transparent grid sheet.



ENGINEER STUDIES blueprint, can revise it and make a new one in 10 minutes.

sional models tend to reduce the number of errors.

The beauty of the model is that you can get blueprints from it and completely bypass the draftsmen. It's done with a grid sheet marked off in quarter-inch squares, each representing one square foot of floor space (pictures). Blueprints finally go to millwright rigging gangs who move machinery; they are also used for further study and planning.

K-F works manager, Harvey Smith, in charge of aircraft, says the new method took only two months and 60 men; the old techniques would have taken six months and 160 men.



Push-button "cold wave"

ANOTHER EXAMPLE OF PRODUCT IMPROVEMENT
THROUGH AIR CONDITIONING AND REFRIGERATION

TODAY . . . when manufacturers wonder how their products behave at extreme altitudes, they simply push a button to create a sub-zero cold wave of stratospheric temperature.

The "climate room" shown above is installed in the experimental laboratories of a leading producer of electronic devices. Delicate instruments are exposed to low temperature conditions encountered in actual use . . . enabling engineers and physicists to perfect precision-built equipment. Controlled temperature chambers, such as this, add constantly to scientific development.

Throughout industry there are many practical applications of refrigeration and air conditioning. Cutting oils are mechanically cooled . . . steel is cold-treated . . . "miracle drugs" receive a "dry-freeze" . . . plastic abrasives are molded in controlled temperature and humidity. These, of course, are but a few of the ways in which refrigeration and air conditioning contribute to product betterment . . . lower production costs . . . simplify operations . . . improve working conditions.

Why not determine how air conditioning or refrigeration might readily enable you to improve your own plant procedures? Your engineer, consultant, architect or contractor will gladly offer suggestions . . . and recommend equipment utilizing "Freon" safe refrigerants for maximum protection, economy and efficiency in all types of industrial applications. E. I. du Pont de Nemours & Co. (Inc.), "Kinetic" Chemicals Division, Wilmington 98, Delaware.



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SAFE REFRIGERANTS

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for its fluorinated hydrocarbon refrigerants.

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"PACKAGE
PROPOSITION"
when you**

PUT IT UP TO PRATER



PRATER FRACTIONATING SYSTEM

This closed circuit system will grind and fractionate in one continuous operation. It's all Prater—Dual Screen Pulverizer...Twin Cone Fractionators...Heavy Duty Collectors...and Rotary Air Locks.

Put Prater engineers to work on your processing problem. Make use of their free laboratory service. Write for full details today.

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PRATER

Cures for Stream Pollution

Plant pollution of rivers is industry's job. Probing ways to do it, companies find it's good economics as well as public relations.

"It requires 65,000 gal. of water to produce a ton of steel; 50,000 gal. for a ton of smokeless powder; 320,000 for a ton of synthetic rubber—and you are not going to get this water from sewers that masquerade under the name of streams, as so many of them do in the Ohio Valley."

That's what Edward J. Cleary, executive director of the Ohio River Valley Sanitation Commission (BW-Jul 31 '48, p26) told the Manufacturing Chemists Assn. His words indicate the changing status of stream-pollution control. The political battle against legislative action has almost disappeared. Most industry now is finding that pollution control is good economics as well as good public relations.

But industry has a big job ahead of it, judging from a report, called "Water Pollution in the U. S." released by the Federal Security Agency this week. For the next 10 years, FSA figures that the U. S. needs 3,500 more industrial treatment plants and 6,600 for municipalities, which will cost about \$9-billion.

• **Cut Out Waste**—In digging into techniques, engineers found that the best solution to the problem is to eliminate waste at its source—when it can be done. The best way is to design the process so that there is no waste. Second best is to take a single operation and try to cut down waste output at

that point. But frequently the process isn't flexible enough for either approach.

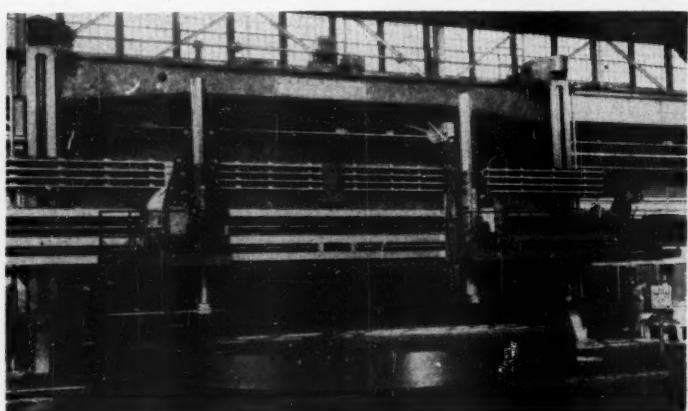
The beauty of this method is that you often save on the pollution-control equipment you don't have to build. Du Pont used this approach at its Waynesboro (Va.) plant. If it hadn't, the company figures it would have had to put in several acres of filtration units.

• **Second Choice**—Often there just is no way to eliminate waste. The alternative—to get rid of the waste you've created—isn't easy, either. To begin with, the waste is usually a pretty complex chemical liquid. Treatment processes must be almost tailor-made to fit the waste.

• **Steel Wastes**—Take the waste liquors of pickling lines in steel mills. A mill can neutralize the liquor by adding lime, or it can use it in making ferrous sulphate if there's a demand for the chemical on the local market.

Although lime neutralization is the most practical treating method, it's the most expensive. But neutralization of a ton of waste liquor with even the cheapest lime costs nearly as much as the original ton of sulfuric acid. After neutralization the sludge goes into a lagoon (or artificial lake) where it filters into the earth.

• **Chemicals**—The chemical processing industry has had as tough a job as steel. Here again the wastes are a combina-



Giant Boring Mill Is Italy-Bound

This is the largest boring and turning mill ever built in the U. S., according to Baldwin-Lima-Hamilton Corp. The 6,250-ton machine is now being shipped to Officine Di Savigiano, Turin, Italy, where it will

turn out parts for water-powered generators. It can handle stock up to 43.5 ft. in diameter. Biggest previous size was a 42-ft. job made for ordnance work at the Watertown Arsenal during World War I.

tion of many chemicals, and no one treatment removes them entirely.

Organic chemicals are probably the hardest to treat. At the Manufacturing Chemist's meeting, Ralph V. Green of du Pont's Engineering Dept. told how metallic-oxide catalysts work with organic wastes in vapor form. The wastes are drawn from distillation units as vapor and oxidized with air in the presence of a chrome-type catalyst. There is no disposal problem because the organics are almost completely converted to carbon dioxide and water.

The treatment has worked well with catalysts containing oxides of copper, chrome, manganese, nickel, and cobalt. Du Pont is also trying them out on liquid wastes from organics.

• **Sell It**—Once in a while, a company is lucky enough to find a market for its waste. General Petroleum Corp., Los Angeles, was stuck with not one but two wastes: an ammonia-containing gas from its cat cracker, and a sulfuric acid sludge. General Petroleum combined the two, wound up with a new fertilizer chemical for which there is a good market.

Socony's Divining Rod Helps Locate Oil

As the petroleum industry's search for oil pushes into less promising fields, the instruments that help in the search become more complicated and more accurate.

The latest oil-exploring device comes out of the research laboratory of Socony-Vacuum's Magnolia Petroleum Co. It looks something like a 4-ft. length of tubing and measures the magnetism of rock formations beneath the earth's surface.

Geologists are pretty familiar with the relationship between geological formations and the earth's magnetism. Variations in the magnetism indicate different types of rock content and formations. By measuring the magnetism from an airplane, geologists can plot the topography of underground rock layers and then estimate the presence of oil.

• **It Measures at the Source**—S-V's modern divining rod, which is lowered into a well, takes the measuring job right to the source of oil. It's designed to supplement the records of instruments that are flown in planes since it studies local rather than over-all formations.

But for work down deep in the earth, manmade devices must be rugged. S-V's instrument can hold up under almost any condition at the bottom of a well. It withstands outside pressures of 10,000 psi. and temperatures as high as 250°F.

continuous feeding of automatics

FOLLANSBEE POLISHED BLUE STRIP can be fed directly into automatics—a continuous, time-saving supply system for any kind of metal-forming operation.

from coils of polished blue strip

FOLLANSBEE POLISHED BLUE has a high-gloss, intense blue finish which is the distinguishing characteristic of this superior strip, and a sales feature for any product in which it is used.

sets a fast production pace

FOR FOLLANSBEE POLISHED BLUE STRIP is furnished in continuous coils for production engineering with automatic machines. There's a Follansbee Steel Representative nearby who can tell you more about Follansbee Specialty Steels.





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RELEASE MACHINE CAPACITY FOR
OTHER URGENT PRODUCTION!

Powdermet gears, bearings, electronic components, and small assembly parts require no machining . . . are delivered to you ready for assembly! Yet they have precision tolerances as close as fine machining can produce. Powdermet parts also help solve your procurement problems, for all necessary materials are ordered by PMP.

Other important advantages are electrical permeability . . . controlled porosity . . . self-lubrication . . . and lower cost—generally less than half! For savings in time, money, and production capacity, investigate Powdermet!

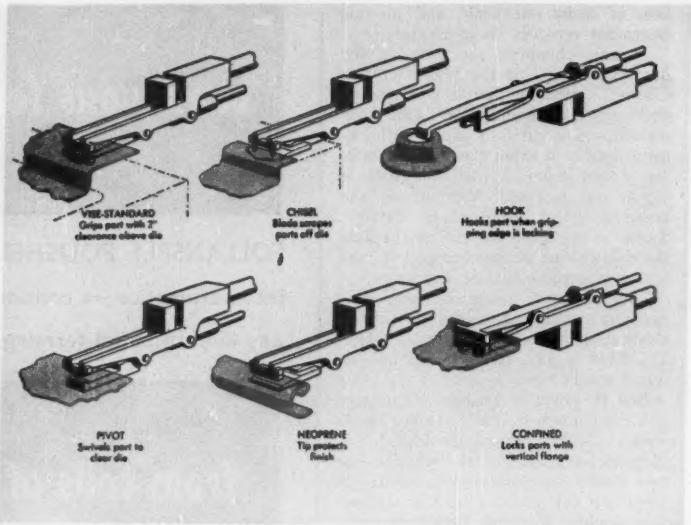
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including catalog data on
standard bearings and gears

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9335 W. Belmont Ave.
Franklin Park, Ill.



SIX GRIPS will lift almost any shape of stamping from its press.

New Fingers for Iron Hands

Sahlin Engineering Co., of Birmingham, Mich., has given its Iron Hand new and more versatile fingers. The device for automatically lifting stampings out of presses now can be fitted with six different metal grips (above), each suited to a different job.

The vise grip is standard; it can clamp on stampings if they clear at least 2 in. above the lower die.

The chisel grip slips under stampings that lie flush on the die, grabs them between two prongs on the upper fingers and chisel blade below.

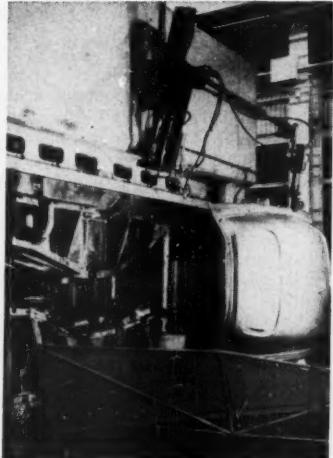
The pivot grip clamps stampings just between the thumb and forefinger, as it were, so that they can swivel clear of the press. It's particularly suited to press setups for auto front fenders.

The hook grip has one curved finger that will hook into a hole in a stamping. Beer-barrel heads and channel-shaped panels can be handled with the hook jaw.

The Neoprene grip is recommended for stampings that must be free of abrasion and indentation such as window or garnish molding. The Neoprene-tipped upper jaw keeps parts unmarred; holds parts without pinching.

The confined grip unloads stampings that have a vertical flange without crushing or damaging the flange. Flanging operation on a finished outer door panel is where the confined jaw would be handy.

Sahlin first introduced its Iron Hand in 1947. Since then, more than 350 of these robot arms have been installed. The hand is synchronized with the



AUTO ROOF is yanked from press bed (left) automatically by Iron Hand above.

press. It moves into the die as the ram rises, lifts the stamping out, and swings it back to a conveyor or table. The hand can be set to come in at any part of the press' upstroke and to lift the stamping to any height.

The device handles parts weighing from 1 oz. to 100 lb. It comes in three sizes. The junior size, recommended for parts produced on presses up to 250-ton capacity, will handle up to 20 unloadings per minute. The two larger unloaders can operate at rates of 12 to 15 strokes per minute.



"COME ON, DAD...PUSH!"

YOU may not shine as the "engine" of Junior's speedster. But as pilot of the family car, you've got tremendous power and speed at your fingertips.

Do you hold them carefully in check whenever necessary for safety's sake? And is your auto insurance *adequate* to provide all-around protection? What about your liability coverages? Are you carrying really *safe* limits?

Your Hardware Mutuals representative will be glad to give you full information. Ask him, too, about the 3,000 attorneys and adjusters, representing Hardware Mutuals in com-

munities across the entire nation, who are ready to give you prompt, fair claim handling. Wherever you drive in the U. S. A., Hardware Mutuals *policy back of the policy* makes *your* interests our first consideration—assures you fast, friendly, day-and-night service. More than \$97,000,000 in dividend savings have been returned to policyholders since organization.

Call Western Union by number, ask for Operator 25, and request the name and address of your nearest Hardware Mutuals representative. He's a good man to know!

Insurance for your AUTOMOBILE...HOME...BUSINESS

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Stevens Point, Wisconsin • Offices Coast to Coast

HARDWARE MUTUAL CASUALTY COMPANY • HARDWARE DEALERS MUTUAL FIRE INSURANCE COMPANY



*In these hands...
a good investment
in good will*

It's sound business to be sure that washrooms are clean and modern—with plenty of hot water, soap, and ScotTissue Towels. Washrooms rank as one of the four most important factors in good working conditions—according to a survey of workers from 400 plants. Softer, more absorbent ScotTissue towels stay tough when wet because of a patented "Duralose" treatment and they're less expensive in the long run, because one towel dries both hands.

Always specify ScotTissue Towels and for suggestions on how to improve washrooms generally, call on the Washroom Advisory Service, Scott Paper Co., Chester, Pa.

Trade Marks "Duralose," "ScotTissue," "Washroom Advisory Service," Reg. U. S. Pat. Off.

SCOTTISSUE TOWELS **Symbol of the right kind of washroom**

Sand in the Gears

It's good for them, says du Pont—if you use their special silica to thicken the grease for lubrication.

A kind of silica, called GS-199S—a derivative of sand—is one of the current laboratory playthings at E. I. du Pont de Nemours' \$30-million addition to its Wilmington (Del.) experimental station.

At the opening of the new addition this week, du Pont demonstrated that the silica can be added to grease to thicken the lubricant. Right now the additive is still in the experimental stage. But du Pont hopes that eventually it will be able to use the silica commercially in a number of different lubricants.

• **Withstand Heat**—Greases that have been thickened with GS-199S retain their consistency as the temperature increases. That way their characteristics remain constant despite variations in temperatures of the bearing or moving parts that they lubricate. Ordinary greases, which are thickened with soap, tend to break down at high temperatures and sometimes increase the wear on bearing surfaces.

Du Pont's discovery was almost an accident. The researchers who developed the silica weren't interested originally in lubricating oils. They were wrapped up in basic research aimed at a better understanding of the structures of forms of silica. But when GS-199S showed such unusual properties, the researchers figured that it might be just the thing for beefing up lubricants.

In the laboratory, silica-thickened grease has stood up well in bearing tests comparable to driving a truck in tight turns at 50 mph. for 10,000 mi. Besides holding up under hot conditions, the grease has also withstood water and mechanical breakdowns.

One of the present goals of silica research at du Pont is the development of a single grease that will work in many grease applications.

Simpler Bottle Designs Recommended by NPA

To conserve critical materials for defense, National Production Authority last week recommended four simplified designs for drug and chemical bottles, plus 38 other designs for foods and beverages.

NPA's suggestions (issued through Schedule 1 of Order M-51) neither cut back present production nor prohibit

the manufacture of any bottle types. They simply inform the industry that this is what the government has in mind if it ever decides to get tough with bottle production. And they imply that manufacturers would do well to start thinking about NPA's recommended designs. When and if end-use restrictions are ordered, the government will allow manufacturers a reasonable period in which to make the change.

NPA's designs for the glass containers include: the Boston round bottle in 18 sizes from $\frac{1}{2}$ oz. to one gal.; the oval Blake in 30 sizes from $\frac{1}{6}$ oz. to one qt.; the round hydrogen peroxide bottle in 8- and 16-oz. sizes only; and the round, screw-cap packer in 28 sizes from two to 4,000 cc.

The original Order M-51—which was issued in March—limited the manufacture of glass containers to designs then in existence. Section 4 of the order provides for schedules that set up simplified designs from time to time.

Salvaging Saves

The idea of salvaging parts and materials for re-use in production may sound like a second-best alternative. But in the face of the current materials shortages, it can pay off with big savings without paring down the quality of a product.

For Westinghouse Electric Corp.—both a mass producer of consumer goods and a contractor of large specialty equipment—this year's saving adds up to \$1.5-million worth of steel, non-ferrous, and nonmetallic materials.

- **Two-Way Project**—Westinghouse is working at the problem of salvage in two ways. In the plant, employees prompt conservation of materials and parts through suggestions to the front office. In the research laboratory, engineers constantly work on longer-term methods for materials savings.

One employee suggested that imperfectly plated toaster housings be stripped of their finish, replated, and used again. That way a large number of housings, which otherwise would have been scrapped, are recovered over a year's time.

Another employee came up with an alternate use of a part that would normally have been rejected: When hinge lugs on waffle-grid bottoms were damaged, the whole piece used to be scrapped. Now Westinghouse just shaves off the broken lugs and uses the bottom grid in the top.

- **Modifications**—Product modifications that are aimed at materials savings take more time and study than on-the-spot salvaging. Right now Westinghouse is working on substitute plating processes for nickel that will use less strategic metals such as chromium and zinc.



They don't grow on trees

The woods aren't full of capable office workers these days. That's why it's vital that you multiply the efficiency of the people now handling your records.

Any girl in your office becomes more versatile when provided with modern, flexible McBee Keysort cards and machines. Without special training, she can keep fresh facts at your fingertips.

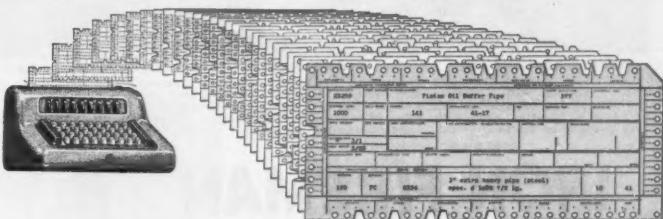
And Keysort puts your records in the hands of people who know your customers, your policies, your business.

With your present personnel, without costly installations, McBee Keysort cards and machines provide accurate and useful management controls at less cost than any other system. When notched, the pre-coded holes along the edges of each Keysort card make it easy to collect a wealth of data—classify it—

summarize it—file it—find it—use it—quickly and accurately.

That's why McBee sales have multiplied sevenfold in just a few short years.

Ask the trained McBee representative near you to tell you frankly whether or not McBee can help you. Or write us.



THE McBEE COMPANY

Sole Manufacturer of Keysort—The Marginally Punched Card
295 Madison Avenue, New York 17, N. Y. Offices in principal cities
The McBee Company, Ltd., 11 Bermondsey Road, Toronto 13, Ont., Can.



Can you afford to waste what Iron Fireman users are saving?



1. Iron Fireman Radiant "Inshot" Gas Burner. This low pressure burner has an efficient firing range of 10% to 100% of capacity, making it a particularly effective burner for modulated firing. Opposed gas jets and an improved method of air entrainment produce an intense radiant flame. Capacities range from 6 to 500 boiler h.p.

2. Iron Fireman Vertical Type Gas Burner. This gas burner is readily adaptable to a wide range of firebox dimensions and is easily installed in any conventional boiler setting. Zone fire control permits low-fire start and modulated firing. Low pressure gas. Capacities from 6 to 500 boiler h.p.

3. Iron Fireman Gas-Oil Combination. Iron Fireman Ring Type gas burner combined with Iron Fireman Horizontal Rotary oil burner permits quick fuel change to meet sudden emergencies, or avoid interruption during daily or seasonal gas shortages. Can also be combined with Iron Fireman Pneumatic Spreader stoker. Capacities up to 500 boiler h.p.

For further information mail the coupon below, or call your local Iron Fireman dealer for complete survey of your boiler plant. There is no cost or obligation to you. Plants in Cleveland, Ohio; Portland, Ore.; Toronto, Ontario. Dealers everywhere.

Iron Fireman firing equipment for heating, processing and power



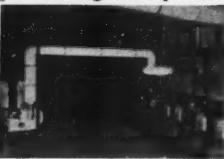
Horizontal Rotary Oil Burner

Fires low-cost, heat-rich heavy oils (Nos. 5 and 6) with complete steadiness and dependability. Oil feed rate is constant, even with wide changes in viscosity of oil.



Coal-Flow Stoker

Feeds coal direct from bin. No coal handling. Synchronized coal and air supply automatically adjusted to boiler load at all times. Capacities to 400 boiler h.p.



Pneumatic Spreader Stoker

Conveys coal automatically. Dries and weights coal. Burns low-cost coals efficiently. Capacities to 1,000 boiler horsepower. Multiple units for larger installations.

IRON FIREMAN

IRON FIREMAN MFG. CO., 3126 W. 106th St., Cleveland 11, Ohio.

Please send literature as checked:

- Commercial Gas Burner
- Rotary Oil Burner
- Coal-Flow Stoker
- Pneumatic Spreader Stoker

Let Iron Fireman engineers help decide which fuel is best for your plant.



Name _____

Address _____

City _____

State _____

PRODUCTION BRIEFS

The first melt of titanium has been turned out at Rem-Cru Titanium, Inc.'s Midland (Pa.) plant, owned jointly by Remington Arms and Crucible Steel.

Orders for coke ovens on the books of Koppers Co. add up to 987 ovens. Wilputte Coke Oven Division of Allied Chemical & Dye has a backlog of 1,017 ovens.

Coke oven demand is one of the reasons for Harbison-Walker Refractories Co.'s new \$3.5-million silica-brick plant at Downingtown, Pa. The plant site is close to U.S. Steel's Fairless Works and other mills. Harbison-Walker Co.'s plant expansions (BW-Apr. 14'51, p110) now total \$25.5-million.

Plant tours are being sponsored by the Industrial College of the Armed Forces for key military and civilian personnel. One group has just finished a study of machine tool and gauge manufacturing at the Pratt & Whitney Division of Niles-Bement-Pond Co. Joint logistic planning, production mobilization, and industrial economy are emphasized in the tours.

Dyestuffs for color-coding iron powders are the latest development of the Antara Products Division of General Dyestuff Corp. Powders that are sintered into electrical transformer cores can be marked with the dyes, eliminating the need to engrave, emboss, or paint on identifications.

A shortage of zirconium has forced Westinghouse Electric Corp.'s Bettis Field laboratory, Pittsburgh, to convert part of its facilities to producing the metal. Work on the company's atomic submarine project was bottlenecked by the pinch.

Plant expansions: Monsanto Chemical Co. plans a midwestern center in the Cincinnati area for producing and distributing its plastics. . . . National Carbide's Air Reduction Co., Inc., starts construction this summer at Clavert City, Ky., on electric furnaces that will help turn out 142,500 tons of calcium carbide per year. . . . More helicopters are in the offing when Bell Aircraft Corp. completes its \$3-million plant at Ft. Worth, Tex.

A better fire-control system for aiming antiaircraft artillery has been developed by Bell Telephone Laboratories for Army Ordnance. Although details are hush-hush, it is said to assemble and process much more information about hostile aircraft than older types.

If they'd only give me half a chance!

*It's not my fault I'm only half a girl
—it's these business forms we use. I put in full time,
but half of me is wasted . . . half the time I'm doing
things I should never be bothered with!*

What things? Well, setting forms in the typewriter—Uarco continuous forms feed themselves. Realigning—Uarco makes it unnecessary. Inserting carbons—Uarco pre-sets them. Recopying—Uarco combines forms so that one writing serves many departments. Follow-ups—Uarco makes distribution almost automatic!

These are just samples. Actually, Uarco business forms trim all waste moves from typing the form to filing it away.

No more "half-girls"—everyone works to full advantage.

The price of Uarco forms is nothing beside the savings they effect . . . remember, it's the cost of the completed form that counts! Call your Uarco Representative for a survey of your needs. No cost, no obligation.

Factories: Deep River, Connecticut; Chicago, Illinois;
Cleveland, Ohio; Oakland, California. Sales
Representatives in all principal cities.



Send for these time and money saving forms

UARCO, Incorporated
Room 1625, 141 West Jackson Blvd.
Chicago 4, Illinois

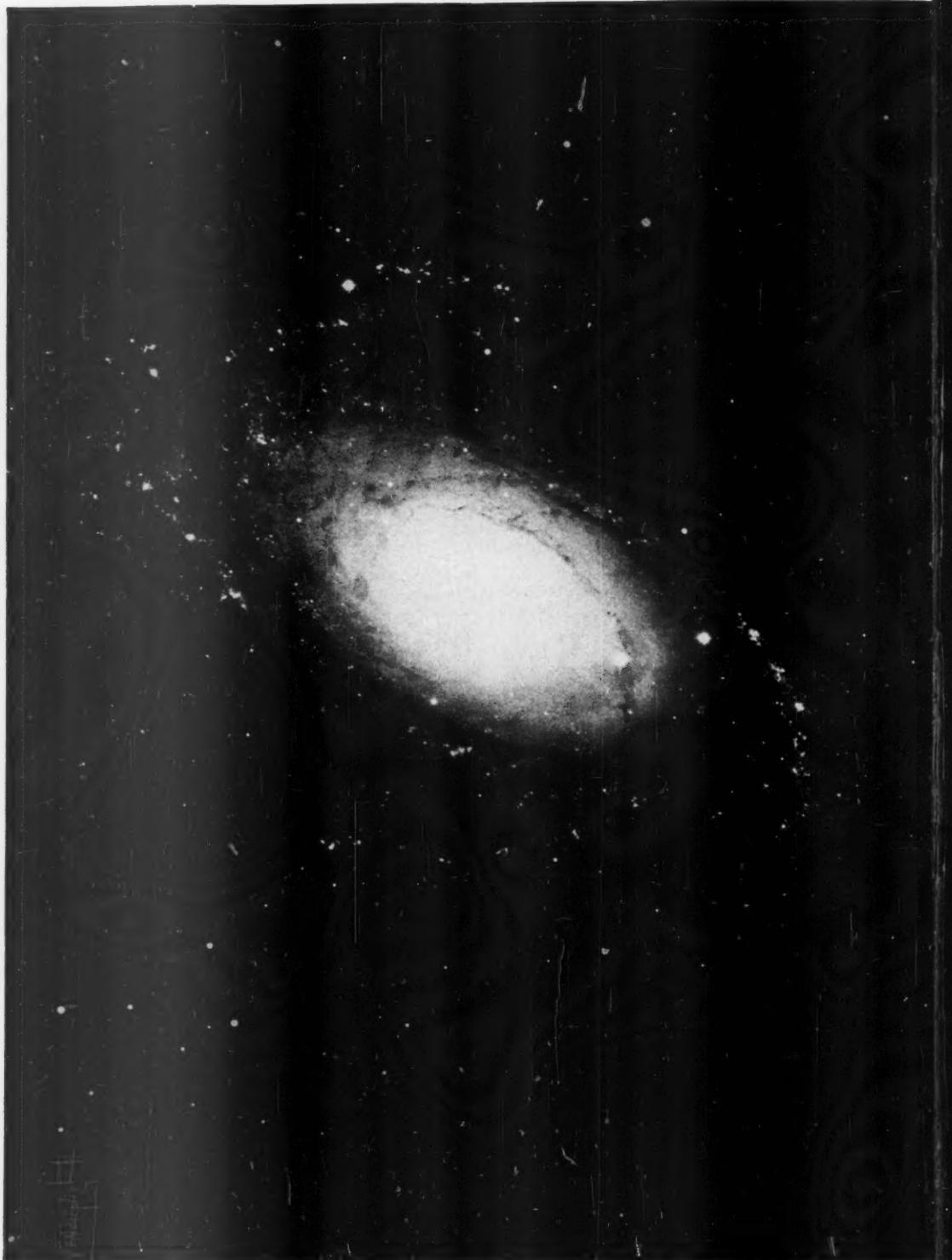
Please send me, without charge, your large portfolio
of samples of UARCO waste-cutting business forms.

Name

Company

Address

City, State



Courtesy: California Institute of Technology

200 INCHES CLOSER TO TRUTH...

Reaching out two billion light years into space, the giant eye of Mt. Palomar's new 200-inch telescope searches space for new answers to the riddle of Man's place in the Universe . . .

Faced with earthier problems, advertising people are searching for the same scientific, impartial standards in their investigations of advertising and editorial readership. That is the reason for the Advertising Research Foundation, jointly sponsored by American Association of Advertising Agencies, Inc. and the Association of National Advertisers . . .

Composed entirely of agency executives and national advertisers, the Foundation has as its purpose "the promotion of greater effectiveness in advertising and marketing through objective and impartial research."

NEW KIND OF SCRUTINY...

The Continuing Study of Business Papers conducted by the Foundation is the most searching scrutiny that has ever been made of the American Inter-Communications System . . . that great group of specially edited magazines devoted to the work areas of men in business and industry. Conducted with painstaking care, completely free of any media influence, it penetrates deeper and sees truer than media research ever has before . . .

HOW WE HAPPEN TO KNOW...

The Foundation's three most recent audience and readership studies were made on McGraw-Hill Publications . . . *American Machinist* . . . *Chemical Engineering* . . . and *Business Week*.

As publishers, we are proud to be selected for this study. As advertisers, you will undoubtedly be interested in the high new levels of objective evaluation which the Foundation's methods have made possible. These studies are now available from the individual publications or from the Advertising Research Foundation.

McGRAW-HILL PUBLISHING CO., INC.

330 WEST 42nd STREET, NEW YORK 18, N. Y.

HEADQUARTERS FOR BUSINESS INFORMATION



Every 2½ Minutes

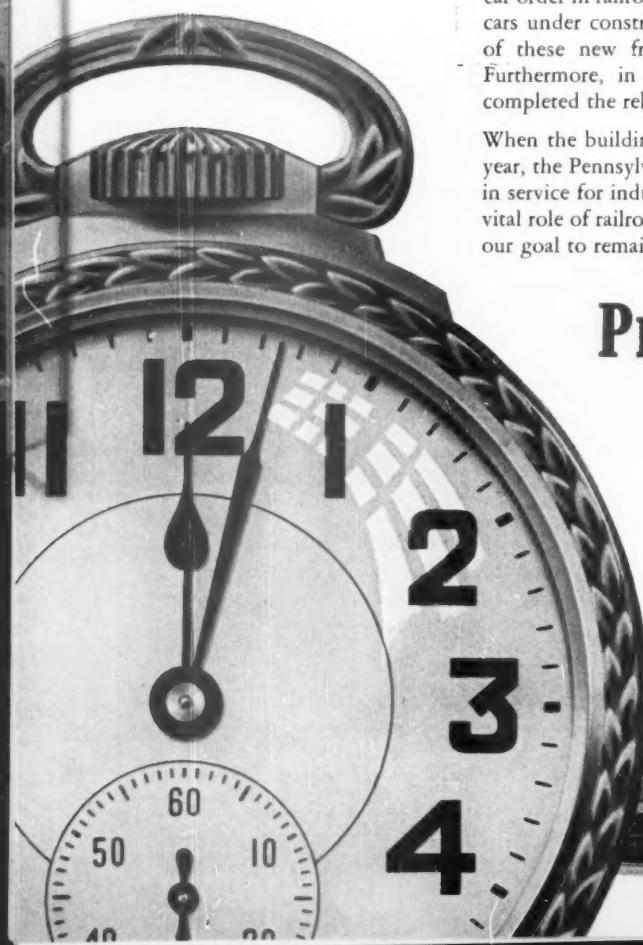
**ANOTHER NEW OR REBUILT FREIGHT CAR GOES
TO WORK FOR THE PENNSYLVANIA RAILROAD**

For any transportation requirement of industry or defense, new and rebuilt freight cars are going into Pennsylvania Railroad service this year at an unprecedented rate . . . on the average, a car every 2½ minutes of the working day . . . hopper cars, box cars, gondolas and flat cars.

Many car shops, including our own, are working on this freight car production program. From the car builders last year we ordered 20,000 new box cars and gondolas, the biggest freight car order in railroad history. These are in addition to 6,610 new cars under construction in our own shops. More than 14,000 of these new freight cars have been built and delivered. Furthermore, in the Pennsylvania's shops we have almost completed the rebuilding of 34,000 freight cars.

When the building and rebuilding program is completed this year, the Pennsylvania will have more than 200,000 freight cars in service for industry and defense. World War II revealed the vital role of railroad transportation. Ever since then it has been our goal to remain ready for any emergency.

**PENNSYLVANIA
RAILROAD**



NEW PRODUCTS



Collapsible Drum

After carrying 55 gal. of petroleum on a shipment, these containers are ready to collapse. In fact they do-cutting return shipping costs considerably. You can ship 2,500 of the collapsed drums in a standard box car that normally holds about 300 rigid drums, the manufacturer, U. S. Rubber Co., says. An empty collapsible drum weighs under 30 lb.

The company makes the synthetic rubber-fabric drums out of its Ustex cord fabric—a strong, low-stretch cotton textile. U. S. Rubber impregnates the fabric with Neoprene, molds it into one piece. The result is a tough, flexible, lightweight drum about the size of a regular barrel. It's easy to lift, roll, handle, and stow. The drum comes equipped with fittings for filling, emptying, and lifting.

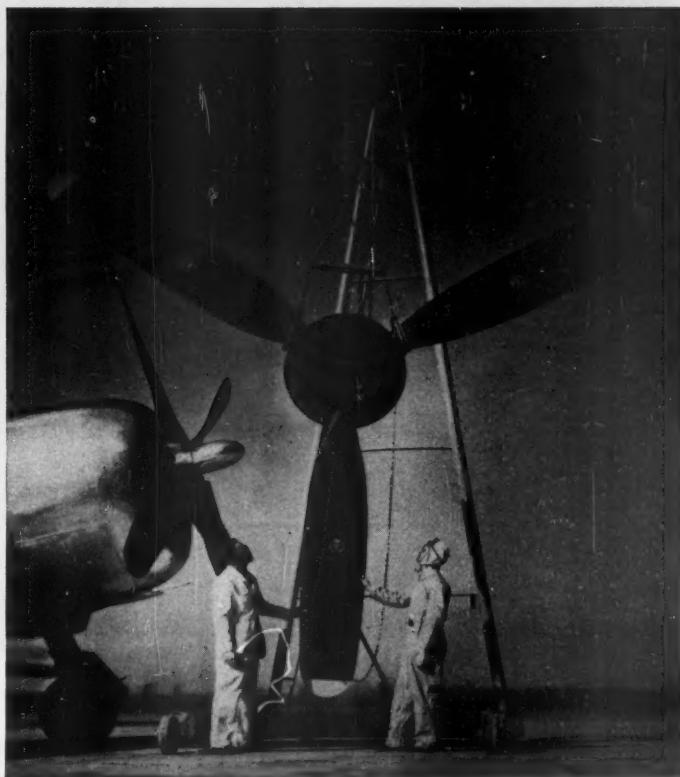
The drum can also carry liquid chemicals, fats, paints, and powders. Since the inner surfaces have no corner pockets, it empties completely and is easy to clean. The drums are somewhat more expensive than steel models.

• Source: U. S. Rubber Co., Rockefeller Center, New York, N. Y.

Fast Valve-Seat Grinder

If you want a valve to work well, you must make it fit into the valve seat like a hand in a glove. Thompson Products, Inc., has a portable valve-seat grinder that's supposed to do this fitting job—and do it faster than filing and hand-lapping methods. The pneumatic grinder is for large internal-combustion engines, handles valve seats with an inner diameter of from 2 $\frac{1}{8}$ in. to 12 in.

You can use the grinder in the shop or attach it to the engine. The grinding wheel operates at 12,000 rpm. Only a small portion of the wheel contacts the seat surface, thus minimizing vibration and the chance of



What's this 3-bladed approach to speed defense production?

...a brush! It saves time . . . cost . . . space.

The Propeller Division of the Curtiss-Wright Corporation had a problem. It had to clean and finish a shot-peened bearing area inside the hubs of its propellers. It appeared this vital operation would require large, elaborate equipment, costly jigs and considerable time getting into production.

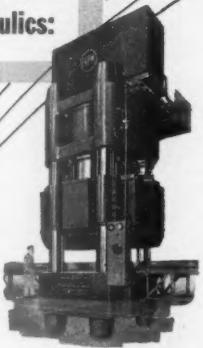
Then, with the help of their Osborn Brushing Analyst, a method was worked out to do it with power brushing. By mounting an Osborn Monitor® Brush on a simple drill press adapted for the job, they are getting excellent finishes at high speed.

This is another example how Osborn power brushing can help simplify and speed production jobs. Your Osborn Brushing Analyst will gladly assist on any defense tooling-up problems involving product cleaning or finishing. Write Dept. 502, The Osborn Manufacturing Company, 5401 Hamilton Avenue, Cleveland 14, Ohio.



**LOOK FOR THE NAME OSBORN . . . RECOGNIZED EVERYWHERE
FOR QUALITY WORKMANSHIP AND MATERIALS**

Serving Industry
Through Hydraulics:



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In the aviation industry, specialized production problems in the forming, stamping, or drawing of metal parts are constantly being solved by the application of H-P-M "all-hydraulic" Presses. The list of aircraft frame and engine builders, who are among the hundreds of H-P-M users throughout industry, is visible proof of this statement. Indeed, in every industry where metal working is a part of the manufacturing picture, you'll find H-P-Ms at work. And if die casting or plastics molding is a part of your operation, there are H-P-Ms for these processes also. Check into H-P-M's broad line of production presses today for a profitable solution to your manufacturing problems.

- Makers of Presses for the Metal Working and Processing Industries
- Plastics Molding Presses
- Die Casting Machines
- Hydraulic Pumps, Valves and Power Units



THE HYDRAULIC PRESS MFG. CO.

1000 MARION ROAD, MOUNT GILEAD, OHIO, U.S.A.

inaccuracies. The wheel dresser, or finisher, attaches directly to the grinding wheel, so you don't have to remove the grinder to complete the finishing operation. Thompson says you get a smooth, micro-inch finish at any angle from 0 deg. to 90 deg.

The 22-lb. unit works from air pressure of from 90 psi. to 125 psi., from a high-volume tank. Thompson says air operation is an important safety factor when using the unit in gasoline plants, compression stations, or wherever a fire hazard exists.

• Source: Thompson Products, Inc., Bell, Calif.

• Price: \$625-\$670.

Compact Tube Bender

For tailor-made tubing, Tal Bender, Inc., builds a compact 5-lb. unit that bends and offsets tubes up to 180 deg. Called the 3-in-1 Bender, it has settings for $\frac{1}{8}$ -in., $\frac{1}{4}$ -in., and $\frac{3}{8}$ -in. tubing (outer diameter) of copper, brass, or steel.

You set the tube in place, then grasp the tool by the handles, as you would a pair of pliers. As you pull them together, the two handles operate ratchet devices on gears. The gears, in turn, exert pressure that bends the tube. One full pull of the handles gives the tube a 180-deg. bend; for a more acute bend, you simply repeat the operation.

The bender is made of aluminum alloy. Tal Bender says it is particularly suited for use in the refrigeration line, for radiant heat coils, and for airplane manufacturing.

• Source: Tal Bender, Inc., Milwaukee 2, Wis.

• Price: \$38.

Firepower for Lock Pins

A fired cartridge can propel a locking pin as well as a bullet, says Mine Safety Appliances Co. Thus a small blank cartridge is the only power source for a tool, called Velocity-Power Interlock Pinner, made by the company for riveting railway signal-pipe connections. Interlocked signal-pipes are used by some roads in their mechanical signaling systems.

The pinner looks like a tube with a handle at the top and a jaw at the bottom. You unfasten the lower half of the unit and clamp the jaw onto the pipe. Place the pin and cartridge assembly in the upper part, then screw the two sections together. To fire, turn the thumb-operated safety latch under the handle 180 deg., and push down the handle. The fired cartridge exerts a force of thousands of pounds on the pin, instantly drives it through the pipe and its internal steel plug.

Mine Safety says the pinner is par-



*Cities Service Terminal & Compounding plant,
Chicago, Illinois*

Newest link of PROGRESS

NOW!...The newest...finest...
most modern plant for compounding
and packaging lubricating oils

Month by month you see the proof piling up of still more Cities Service growth... strength . . . progressiveness. Now the latest Cities Service facilities have been added in Chicago's Cicero district. Here a completely modern 25-million-gallon plant is in full operation today, to serve you with lubricants of characteristic Cities Service quality.

The size of this complete plant...its rail and water transport advantages...and the excellence of its output signify the progress Cities Service is attaining throughout its marketing area. Cities Service has been progressive and will remain so, always striving to provide its dealers...its customers...with the finest petroleum products made.





How were these copies made?

They were mimeographed! Yes, MODERN mimeographing now actually reproduces printing type faces and intricate drawings—and still is unchallenged for over-all economy. Now add a host of other bonus features. For example, duplicating in 4 or more colors at one time...two-sided work on thinner paper... mimeographing on almost every kind of paper and card stock.

Such extra versatility above and beyond routine mimeographing now makes this process more useful than ever. For a free portfolio of MODERN mimeographing samples and full facts, send the coupon. Do it... write now! Learn how you can save through MODERN mimeographing with A. B. Dick products—for use with all makes of suitable stencil duplicating products.



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ticularly good for applying second rivets, in accordance with recent ICC rulings. The tool drives the pin within $\frac{1}{2}$ in. of the existing rivet. Slight changes convert the tool into a driver unit for other fastening jobs.

- Source: Mine Safety Appliances Co., Braddock, Thomas, and Meade Streets, Pittsburgh 8, Pa.
- Price: \$135.



Roll-Your-Own Air Filter

To cut air-filter material to size, you don't have to call in an expert. You can use glass-fiber packs, called Roll-Pak, and do the job yourself, says Glasfloss Co. Instead of disposing of an entire framed filter unit—the standard practice—the Glasfloss method is to install permanent outer screening and change just the filtering element itself.

You use coarse wire screening, similar to chicken wire, on both sides of the filter material. To change a filter, roll out a pack, cut it to size, then install it between the screening. Glasfloss claims you save time by inserting a whole bank in a single operation, instead of using a number of individual framed units. Using a knife or scissors, you can complete the operation in a matter of minutes, the company says. Any mess from the oily film on the fibers washes off easily.

The material comes in rolls 40 in. wide and 10 ft. long, in 1-in. and 2-in. thicknesses. A Roll-Pak carton contains five rolls and provides air-filter coverage of 167 sq. ft. Glasfloss says its method is cheaper than conventional filter arrangements.

- Source: Glasfloss Co., 155 E. 44th St., New York, N. Y.

Protect the Wood

Treat a wooden part with Cellu-san, and it's ready to face its natural enemies—water, mold, and mildew, says the

**When you want something
better than metal**

micarta is basic!

Consider MICARTA® as a basic material. It is lighter than aluminum. Pound for pound it has greater compressive strength than structural steel. It has a high shock resistance.

MICARTA is a solid and workable plastic which will not corrode. It resists heat and cold . . . is an ideal insulator.

MICARTA's tough and resilient structure can be fabricated to micro-fractions of an inch. It can be machined, formed or molded easier and more economically than any metal.

Industry is finding more and more applications for MICARTA every day. This versatile material may be the answer to your metal parts problem. Westinghouse Electric Corporation, Micarta Division, Trafford, Pennsylvania. J-06446



AVIATION INDUSTRY

MICARTA is flying high . . . in pulleys, antenna masts, data cases, valve parts, instrument panels, knobs, handles, landing gear strut bearings, and structural angles and channels. In this and other industries, MICARTA as a basic material is coming to the front.



EXTRUDED PRODUCTS

BELTING

HOSE

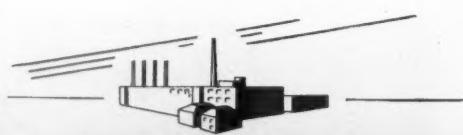
MOLDED PRODUCTS

*Ready for Defense Production
of INDUSTRIAL RUBBER PRODUCTS*

• Republic's production and engineering facilities can help you fulfill defense contracts faster. . . . For 50 years we've specialized in the field of industrial rubber, making all types of:

- MOLDED RUBBER PRODUCTS
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- HOSE (BRAIDED, WRAPPED, METAL REINFORCED)
- BELTING FOR ALL PURPOSES

• Write, phone or wire us today about your requirements. Engineering consultations are also available to help you develop bids. Address: Republic Rubber Division, Youngstown, Ohio. Phone 3-2131.



INDUSTRIAL RUBBER PRODUCTS BY

REPUBLIC RUBBER DIVISION

Lee Rubber & Tire Corporation
YOUNGSTOWN, OHIO

manufacturer, Fungitrol Chemicals, Inc. Wooden pallets, boxes, baskets, and crates reportedly last longer, withstand rougher handling when you use the preservative. Cellu-san consists of zinc salts and water-resistant materials.

You mix the liquid concentrate with mineral spirits, in a ratio of one part to two parts. Apply it by dip, spray, or brush—it's safe to handle. Cellu-san acts as a fungicide against mold and mildew. That's especially important for pallets used in refrigerated rooms where moisture condensation is severe, or in handling products like sugar, which encourage mold growth. Water-repellent, it reduces swelling, warping, and shrinkage. Fungitrol claims the product is nontoxic and odorless.

• Source: Fungitrol Chemicals, Inc., Hillside, N. J.

NEW PRODUCTS BRIEFS

No eyestrain: That's the big advantage of a self-threading sewing machine needle, made by John Dritz & Sons, 1115 Broadway, New York City. The thread slides down a slotted shank that's similar to a key ring, then slips into place.

A streamlined fire-alarm box developed by Edwards Co., Inc., Norwalk, Conn., adapts easily to any circuit arrangement. To send an alarm, you just pull a handle. There's little danger of accidental alarms, Edwards says, because the pull-handle is flush, has no extending parts.

Flexible, fluorescent "rope," called Dix-ray, forms lettering and designs. The rope, $\frac{1}{8}$ in. in diameter, retains any shape. Manufacturer James A. Norris Co., 392 Bleeker St., New York City, says that it is four times more brilliant than ordinary colors on a dull day, becomes even brighter when used with black light.

Hex Lox Nut has a double locking action, bites into sheet-metal screws at two different points. The manufacturer, Prestole Corp., 1345 Miami St., Toledo, Ohio, claims it has twice the tensile strength of ordinary spring nuts.

A cylinder in a straw that bobs up and down as children drink is supposed to entice them into drinking more milk. Made by Messick Products Co., 1101 N. State St., Syracuse, N. Y., all parts of the Drinkmore straw are plastic. Messick recommends them as giveaways for milk companies and others, sells them for \$60 a thousand in lots of 1,000 to 5,000.



Steel globe-trotter

Armco Special-Purpose Steels bob up almost everywhere, like this section of Armco MULTI-PLATE Pipe going under a railroad in far-off India.

Armco's nine steel plants in the United States are now turning out steel at the rate of better than 4,300,000 tons a year. By the end of 1952 new Armco furnaces, rolling mills and other specially built equipment will add another half million tons to America's steelmaking capacity.

During the past five years Armco has invested or earmarked over 210 million expansion dollars to meet the steel needs of America here and abroad.

Since the first small "heat" of steel was poured at the turn of the century, Armco has bent its creative skills to the development of *extra*-quality steels for exacting uses. That's why Armco today is one of the world's largest producers of the special-purpose steels so necessary to our economy.

ARMCO STEEL CORPORATION

MIDDLETOWN, OHIO, WITH PLANTS AND SALES OFFICES FROM COAST TO COAST
THE ARMCO INTERNATIONAL CORPORATION, WORLD-WIDE



EDUCATION



WITH FIXED DESKS, Elizabeth (N. J.) teacher gets variety by holding class informally.

Public Schools Crowd Up But Teach Kids Better

STORY ON PAGE 116



WITH FIXED DESKS GONE, class can be



INFORMAL SEMINARS are more common nowadays. So is the use of tape recorders to help students improve their diction.



broken into several separate groups.



JOB COUNSELLORS for seniors are on regular school payroll at Elizabeth, help kids decide what fields they are best suited for.

WEALTH

COMES NATURAL IN THE NORTH

Natural wealth from A to Z! Asbestos to Zinc! Include gold, copper, lead, titanium, iron, coal, uranium . . . you'll find them all in Canada, the 20th century "growth" country that abounds with natural wealth from its U. S. borders to the Arctic.

To join the many U. S. businessmen who are sharing in the development of these natural reserves in Canada today, contact the Bank of

Montreal . . . Canada's first bank.

The B of M knows Canada from coast to coast, and every day our officers help solve the problems of American executives doing business in Canada.

Write any U. S. office or the Business Development Department, Bank of Montreal, Place d'Armes, Montreal.

*Canada... LAND OF PROFIT-PACKED OPPORTUNITY

"MY BANK"



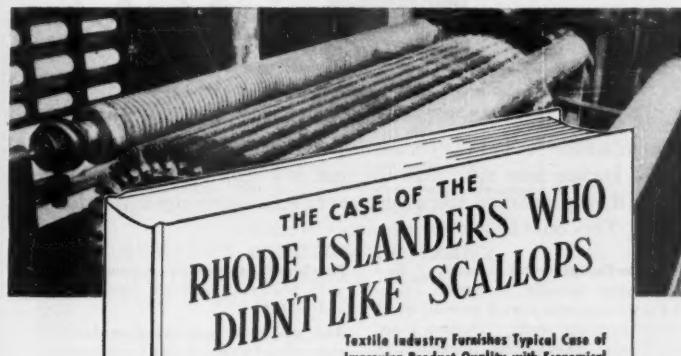
BANK OF MONTREAL

Canada's First Bank Coast-to-Coast

New York --- 64 Wall Street Chicago --- 27 S. La Salle Street San Francisco --- 333 California Street

Head Office: Montreal

550 BRANCHES ACROSS CANADA • RESOURCES EXCEED \$2,000,000,000



The people at Thies Dyeing Mills, West Warwick, R. I., may enjoy scallops in a restaurant — but it was quite a different matter when the brush surfaces on their yarn dressing machines wore into scallops. With scalloped brushes the low spots did not touch the strands of yarn. Polishing was incomplete, and the glaze not up to standard.

Seven years ago the Thies Mills

began converting to FULLERGRIP — in which brush material is packed, and anchored, in a continuous metal strip. Yarn was then polished uniformly. In addition to improving product quality, the FULLERGRIP brush strips had long life. Using FULLERGRIP saved money. Similar economies are possible on many processes, in many industries . . . perhaps yours. Why not write for our booklet?

FULLERGRIP BRUSHES

The FULLER BRUSH Co.
INDUSTRIAL DIV.
3650 MAIN ST.
HARTFORD 2, CONN.



Uncomfortable . . . but not uncommon! Increasing office figure work and record keeping have more than one man in a tight squeeze these days! Before it happens to you, take advantage of the Comptometer services listed below. They can't be beat for economy OR efficiency!

The New Comptometer—handles all office figure work speedily, accurately! Exclusive three-way error control prevents errors caused by faulty stroke. Effortless Floating Touch! Instantaneous registration of answers! And so easy to operate. In fact, if you can count on your fingers, you can operate a Comptometer!

Peg-Board Accounting—original postings yield final results. Saves time, tempers and money!

And call your nearest Comptometer representative for: Rental Comptometers, by day or month. Factory-trained servicemen. Help on your payroll problems. A demonstration of the new Comptometer.

COMPTOMETER



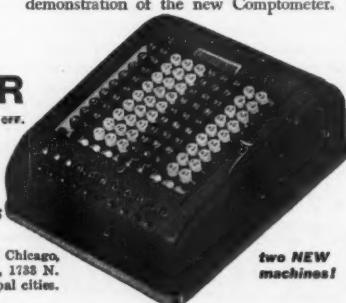
REG. U. S. PAT. OFF.

FELT & TARRANT

ADDING-CALCULATING MACHINES
(electric and non-electric models)

Made only by Felt & Tarrant Manufacturing Co., Chicago, and sold exclusively by its Comptometer Division, 1733 N. Paulina St., Chicago 22, Ill. Offices in all principal cities.

© 1951 Felt & Tarrant



two NEW
machines!



TEACHER STOPS BY, not to check up so much as to help out with a problem.

"...For the masses, high school was regarded as a waste of time..."

PUBLIC SCHOOLS starts on p. 114

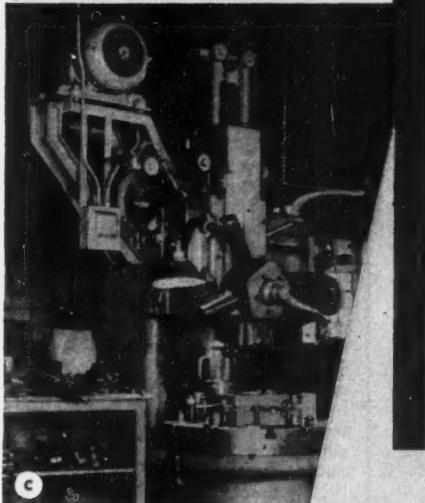
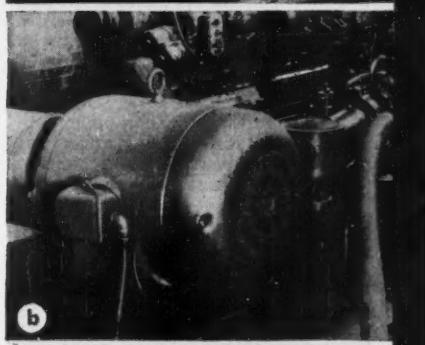
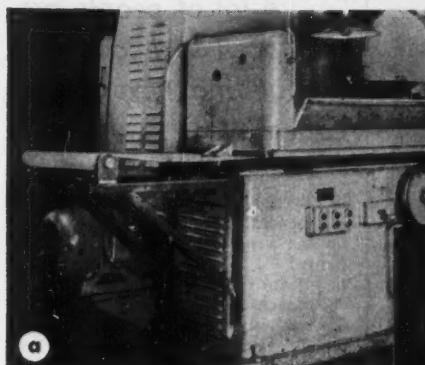
Not long ago two Burbank (Calif.) newspapers and the San Fernando Valley Times carried a series of two ads. They urged the voters of the area to approve a 50¢ boost in the tax rate to help Burbank's public schools meet operating expenses.

• **Business Backing**—Such messages would not seem unusual if they came from the school board, the Parent-Teachers Assn., or some other civic group. But these ads were bought and paid for by Lockheed Aircraft Corp.—even though as the town's biggest landholder it would have to carry the heaviest part of the burden. The ads pushed the new rate through.

Lockheed has long had a reputation for taking an active interest in civic affairs. But its part in this particular venture highlights a fairly recent development—growing concern by business over the state of the public schools.

• **More Importance**—The reasons for this new interest are not too hard to find. For one thing, it is good public relations for any business to push for better schools in its community. But there is a more selfish reason: Nowadays, the children of almost everyone in the company, from the president down to the workers, go to the local public schools. That didn't used to be the case. Wealthy parents sent their kids to private schools; those who couldn't afford their kids to finish grammar school and then sent them out to earn a living. For the masses, high school was regarded as a waste of time.

Within a relatively short time, there



a Surface grinder with Century 5 horsepower TEFC motor mounted near the floor.

b Century 15 horsepower TEFC motor operates in coolant fog from this grinder.

c Boring Mill with Century 5 horsepower TEFC motor.



In Atmospheres Containing Dust,
Mist, Dirt, Fog... Protect the Power
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Totally Enclosed Fan Cooled Motors

In locations where the air is charged with substantial quantities of metallic or abrasive dusts, coolant mists or fog, or oil-laden factory dusts, Century Type TEFC Motors assure protection to help maintain uninterrupted production.

Because the vital parts of the motor are sealed in an inner frame, they are isolated from the outside atmosphere. A large fan blows cooling air between the inner and outer frames—keeps the motor temperature well within safe limits.

Wherever there are adverse atmospheric conditions, specify Century Totally Enclosed Fan Cooled motors, to give you the extra assurance that production will be maintained.

Other types and kinds of Century motors are built in sizes from $\frac{1}{6}$ to 400 horsepower—designed to meet all popular industrial requirements.

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Century Electric Company is celebrating its 50th Year in the electrical industry.



ALTERNATING CURRENT MOTORS POLYPHASE

Squirrel Cage Induction— $\frac{1}{6}$ to 400 H.P.
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MOTOR GENERATOR SETS

AC to DC, AC to AC
DC to DC, DC to AC

Open Protected, Splash Proof, Totally Enclosed Fan Cooled, Explosion Proof.

*Here's a B&O motto
that makes
shipping easier for you*

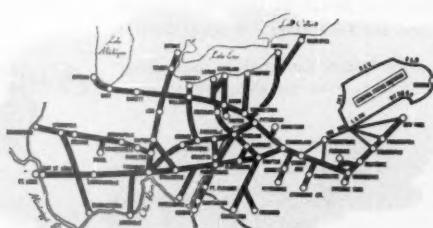
**Personal Interest
all along the line
leads to
Shipper Satisfaction**

- Shippers who use the Baltimore & Ohio are enthusiastic about its care in handling and accurate scheduling. But what pleases them most is the *personalized* service they receive—the friendliness, the suggestions, and the extra efforts in solving special problems.

B&O freight operations such as Sentinel Service on

carload freight, and Time-Saver Service on less-than-carload, work smoothly because of the personal interest taken by B&O people. They take pride in completely satisfying shippers who use the B&O.

This *Personal Plus* rides with your shipments—large or small—when you use B&O. *Ask our man!*



BALTIMORE & OHIO RAILROAD

Constantly doing things—better!



"...A lot of people are convinced their children are getting next to no education . . ."

PUBLIC SCHOOLS starts on p. 114

has been a vast and dramatic change in that idea. Only 40 years ago, almost no one went to high school unless he wanted (1) to go to college to prepare to go into a profession; or (2) to get a "gentleman's" college education. Today, almost everybody goes to high school. The result is that while the U.S. population has tripled in the past 75 years, enrollments in secondary schools have skyrocketed by 90 times.

I. The Crowded Classroom

Hand in hand with this rising popularity of a high-school education has gone the climbing birth rate. This has meant that almost every primary and secondary school in the country has been jammed beyond its limits. Classrooms designed for the ideal maximum of 25 kids now pack in 40, 60, sometimes over 100 pupils.

• **Public Clamor**—This situation has, during the past few years, brought an increasing public clamor against the schools. A lot of people are convinced that, as a result of overcrowding and poor quality of teachers, their children are getting next to no education.

There is no question that this is true in altogether too many cases. But it is far from the truth on a national level. As a matter of fact, most children, both in primary and secondary schools, are getting a better education than their parents ever dreamed of.

II. Signs of Progress

Such a statement is bound to bring cries of protest from many a parent. The reason is that the public school system is not a single unit; in fact, it is made up of thousands of individual systems. Not only do the systems between communities vary, but so do the schools within that system, and the classrooms within its schools.

Nevertheless, some groups have a clear view of the over-all picture. One of these groups is the National Citizens Commission for the Public Schools. Because it was set up—two years ago—for the specific purpose of improving the public schools, its judgment is authoritative. And its judgment is that in general the children of 1951 are getting a better education than the children of 20 years ago.

• **Big Failings**—The commission sees plenty of faults—some of them pretty

More women
go out and buy
Woman's Day



than
any other magazine
in the world*

*3,750,000 average single-copy sales per issue... the world's largest single-copy circulation
on sale at all A&P Stores



MAINTENANCE problem solved with chemistry...

**fuel costs cut
\$388 per day!**

Thirty-seven tons of coal per day! That's what a paper company saved after Dowell Service removed profit-stealing deposits from two 40,000 lb. per hour boilers. And Dowell did the job in just 2½ hours.

When Dowell Incorporated, a subsidiary of The Dow Chemical Company, pioneered the use of chemicals and special techniques to clean industrial equipment, a valuable new service was made available to help operators cut their maintenance costs. Now, 12

years later, Dowell Service is accepted as the best, the fastest, and the most economical way to clean a wide variety of equipment in many industrial installations.

Approved by leading insurance companies, Dowell cleans boilers, heat exchange equipment, water wells, pipelines and many types of process equipment.

Call the nearest Dowell office for consultation on your maintenance cleaning problems, or write direct to Dept. 504 in Tulsa for more information.



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- Maintenance cleaning service for industrial heat exchange equipment.
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The Dow Chemical Company

"...designed to make him a white-collar worker, a small tradesman, an automobile mechanic . . ."

PUBLIC SCHOOLS start on p. 114

serious—in the present school setup. To get adequate physical plant, over \$14-billion is going to have to be poured into 520,000 new classrooms (50% more than there are now in the U.S.) by 1960. On top of this burden, which must come mainly from some kind of taxation, is the financial problem of running expenses. The most important phase of this is teachers' salaries, which have been notoriously low for years. If parents want better teachers for their kids, they will have to do more than shout about it. Specifically, they must pay far more than the 1950-51 average salary of \$2,765.

Where is the money coming from? The commission thinks that state and federal aid will eventually be needed. But it stresses that the function of the schools must be conducted on the local level—and that means increased local interest by parents, businessmen, and citizens.

III. The Shift in Goals

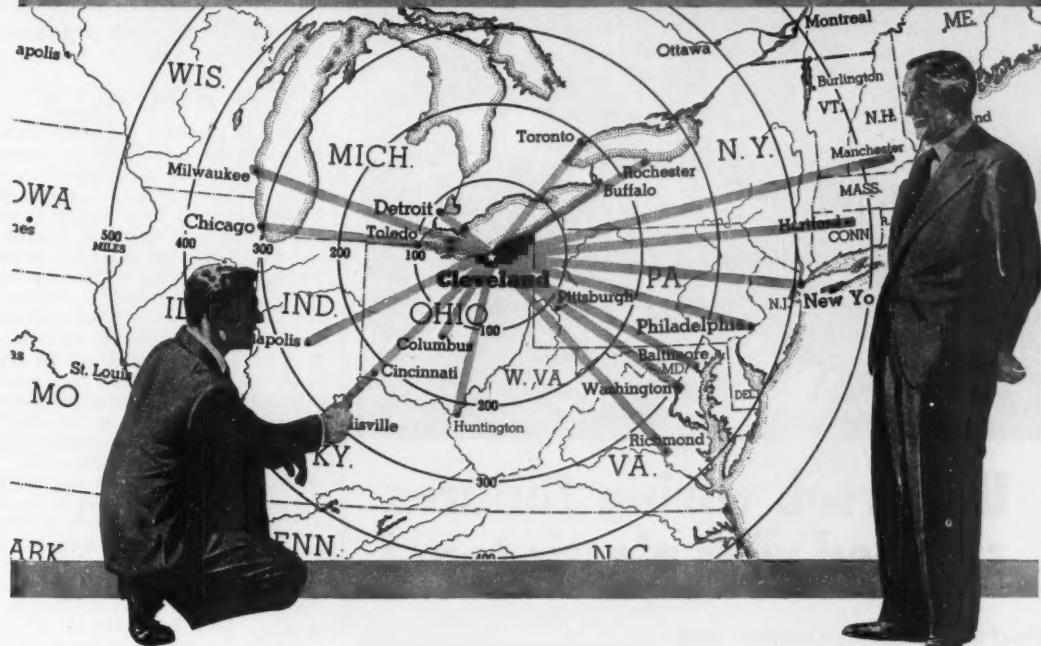
That's the black side of the picture. On the bright side, the commission believes that by and large the schools have absorbed the tremendous influx of pupils and made a lot of educational progress at the same time.

Back in the days when only about 10% of the population went to high school, there was just one course—an academic course consisting of Latin, ancient history, and related subjects. This course aimed at just one goal: to prepare students for college.

• **Serious Goal**—About 25 years ago a trend that had been in the making for several years began to pick up speed. More and more people began going to high school as an end in itself. Suddenly the high school was no longer an introductory prep school; it had the rounded purpose of preparing people for a productive life. And just as suddenly, school principals were faced with the fact that the old curriculum didn't fit the different abilities and backgrounds of people coming into it.

The result was the gradual addition of many new courses in most high schools. Today, in the better public schools, a kid can take a course designed to make him a white-collar worker, a small tradesman, an automobile mechanic, or several other things. And he

THE BEST LOCATION IN THE NATION



"THEN WE PLOTTED OUR MARKETS ON THIS MAP..."

LOOK AT THIS MAP and you'll see instantly why America's top industries have committed more than a billion dollars for new expansion here since 1945.

THIS IS THE ONLY INDUSTRIAL CENTER that offers a market of 81,000,000 people within a radius of 500 miles. Within overnight haul you have two-thirds of the U. S. wholesale market and three-quarters of the nation's production facilities.

And right at hand you have unsurpassed production advantages, including materials, parts-makers, skilled workers and mainline transportation.

DON'T WAIT—INVESTIGATE TODAY! Use our free, confidential Location Engineering Service to get the facts about the best location in the nation. In the long run, the short haul pays!

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- Many producers of parts, materials and supplies.
- Basic materials right at hand.
- Ample financial services.
- Complete business and industrial services.
- Favorable tax structure (no state income tax).
- Diversified industries to supply and be supplied.
- Unlimited fresh-water supply.
- Desirable plants and plant sites.
- Excellent living and cultural environment.

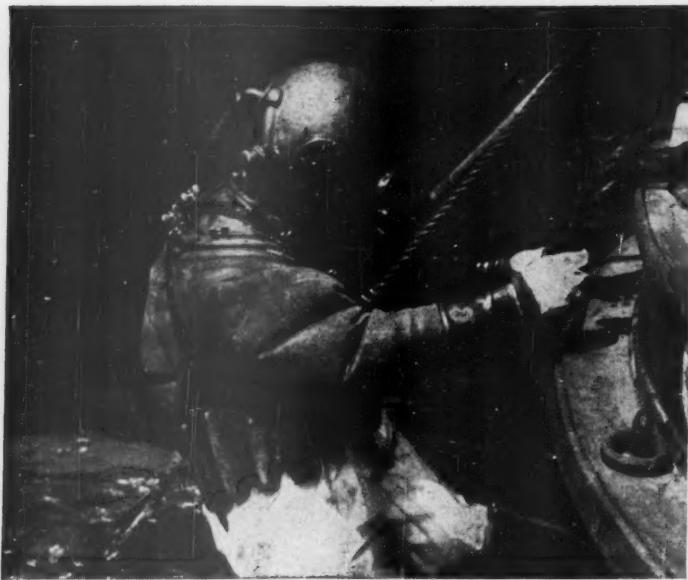
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Write today for free copy of new booklet about Northeast Ohio, entitled "In the Long Run, The Short Haul Pays!" Concise, authoritative, prepared for top management men.



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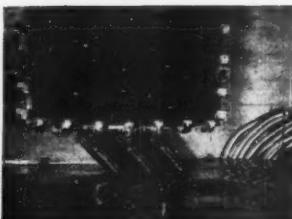
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Undersea wiring failures stopped with plastic tape!

Proof that plastic tape protects →

In the installation shown at right, transition splices between lead and rubber covered cables, subjected to corrosive action of salt water in a manhole below high-tide level, are still in perfect condition. This tough job at San Francisco Naval Shipyard is completely protected by watertight splices made exclusively with "SCOTCH" No. 33 plastic and No. 24 Neoprene Electrical Tape and "3M" Adhesive No. EC-847. Cables have been in service more than 18 months and show no signs of deterioration.



Whatever your insulating problem, one of the many "SCOTCH" Brand Electrical Tapes can help you. They are easy to apply. Seal snugly around odd shapes and uneven surfaces. Write Dept. BW551 for full information.

QUICK FACTS ABOUT "SCOTCH" No. 33 Electrical Tape

- TOUGH PLASTIC—is abrasion resistant, unaffected by water, oil, alkalies, alcohol, sunlight.
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- THIN CALIPER—only .007 inch thick.
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The term "SCOTCH" and the plaid design are registered trade marks for the more than 100 adhesive tapes made in U. S. A. by MINNESOTA MINING MFG. CO., St. Paul 6, Minn., also makers of "Scotch" Sound Recording Tape, "Underseal" Rubberized Coating, "Scotchlite" Reflective Sheeting, "Safety-Walk" Non-Slip Surfacing, "3M" Abrasives, "3M" Adhesives. General Export: Minn. Mining & Mfg. Co., International Division, 270 Park Avenue, New York 17, N. Y.

"... setting up situations that make certain purposes inevitable . . ."

PUBLIC SCHOOLS starts on p. 114

can still get the old college-prep course, complete with Latin.

IV. A Shift in Emphasis

But the big thing about all these courses—including the academic course—is that most good high schools teach them entirely differently than they used to. In fewer and fewer schools these days do you find the strict, Prussian-like discipline of 20 years ago. Even the old fixed desks are on the way out (pictures, pages 114 and 115). You will look far to find the hatchet-faced school marm sitting at the head of the class, a ruler ready in her hand and an eye peeled for trouble. Instead, the teacher of today is more inclined to act like a human being who treats her small charges as human beings rather than as badly behaved little animals.

• **Elizabeth Methods**—One example of how this is put into practice is found in the schools of Elizabeth, N. J. The board of education there says that it operates on the theory that children are individuals. If you treat them as such, it reasons, the kids (1) learn a great deal more; (2) learn faster; and (3) are involved in far fewer disciplinary problems. (On the last point, a teacher in these schools can walk out of her classroom for half an hour—and not an eraser will be thrown.)

This new approach—used in many places besides Elizabeth—has in one sense solved the problem of overcrowding. If you consider each child as an individual, you recognize the variations between interests and abilities. Result: From the first grade up, classes are broken up into three or four separate groups, each group studying a different thing or working on a different problem.

• **What Results?**—But does this result in sound education? Not in itself—but it doesn't stop there. The theme of the individual is carried into the studies themselves in this way: Each subject is studied "in a context of reality." What educators mean by this is that instead of taking Latin, for example, as a unit in itself, you study it in terms of Roman history and the effects of that history on present-day civilization.

This principle applies even in the lowest grades. Kids learn to add by several practical steps. They may divide the class into parts and count up each section.

And in the higher grades, a boy who is studying auto mechanics takes a

FIGHTING THE BATTLE OF THE COTTON PATCH



Just as Niagara chemicals protect cotton acreages, other Niagara insecticides and fungicides are employed in every phase of agriculture.



At least sixteen million bales, or sixty percent more cotton, must be produced this year to fill the rising needs of national defense, added to heavy domestic and foreign requirements. Each year common insects, the saboteurs of the cotton crop, normally destroy one out of every seven bales grown. Cotton-insect control thus becomes more critically important than ever before. In assisting a large and growing number of cotton planters, FMC's Niagara Chemical Division provides the finest scientifically formulated and tested insecticides for controlling all major cotton insects that threaten this nation's vital material.

These and other FMC Division-made products are described in an interesting illustrated booklet, *Know Your FMC's* available on request.

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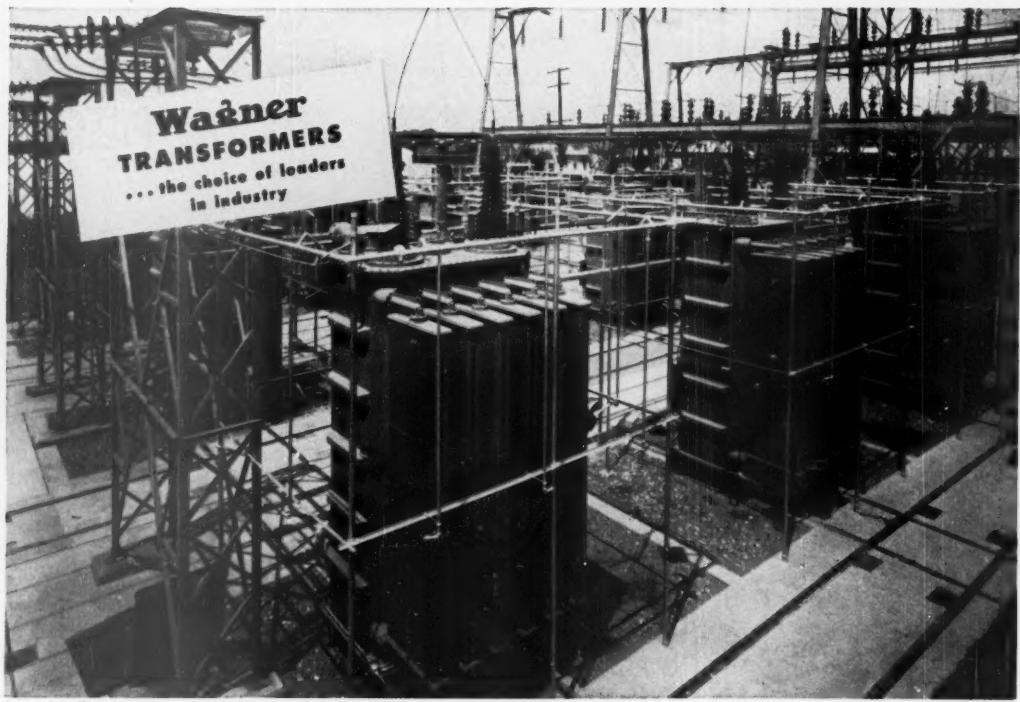
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JOHN BEAN WESTERN DIVISION



Can this be Old New Orleans..?

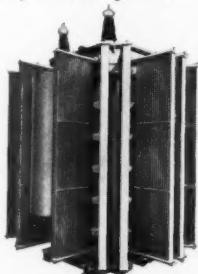
You bet it is! And it's typical of the progress now prevalent in this great port city of the South. Things are booming in New Orleans because of its proximity to vast natural resources, its increasing number of skilled workers, and its unlimited shipping facilities.

The illustration shows the new Midtown Substation of New Orleans Public Service, Incorporated. This power company assures a plentiful supply of low-cost electricity for dynamic New Orleans, and its rapidly expanding industrial area.

Wagner Power Transformers are used in this substation where they perform the essential task of assuring a dependable flow of this vital power.

Wagner transformers are an important part of the equipment of many power companies, just as they are a part of the power equipment of many of the industries served by these companies.

Wagner engineers are qualified to specify the correct transformer for your requirements. Consult the nearest of our 31 branch offices, or write us.



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ELECTRIC MOTORS • TRANSFORMERS
INDUSTRIAL BRAKES
AUTOMOTIVE BRAKE SYSTEMS — AIR AND HYDRAULIC

". . . had their own conference in the classroom and drew up a settlement of the strike . . ."

PUBLIC SCHOOLS starts on p. 114

math course that has a direct relationship to the mechanical problems he has run across in the auto shop.

V. "Unified Studies"

In Elizabeth, this method has reached its highest level in a course called "unified studies." This is based on the teacher's setting up situations that make certain "purposes" inevitable. In other words, he establishes an atmosphere in which individual interests will come out automatically.

For example, if a student who is interested in art has a history assignment, his teacher has him get together with the art teacher, express his ideas in a series of posters or cartoons rather than in a 300-word composition.

• **Strike Settlement**—A most dramatic example of this took place in an eighth-grade unified-studies course in Elizabeth. The school is near the plant of The Singer Mfg. Co., which had a prolonged strike two years ago. About 80% of the kids in the class were affected by the strike—their fathers were not working.

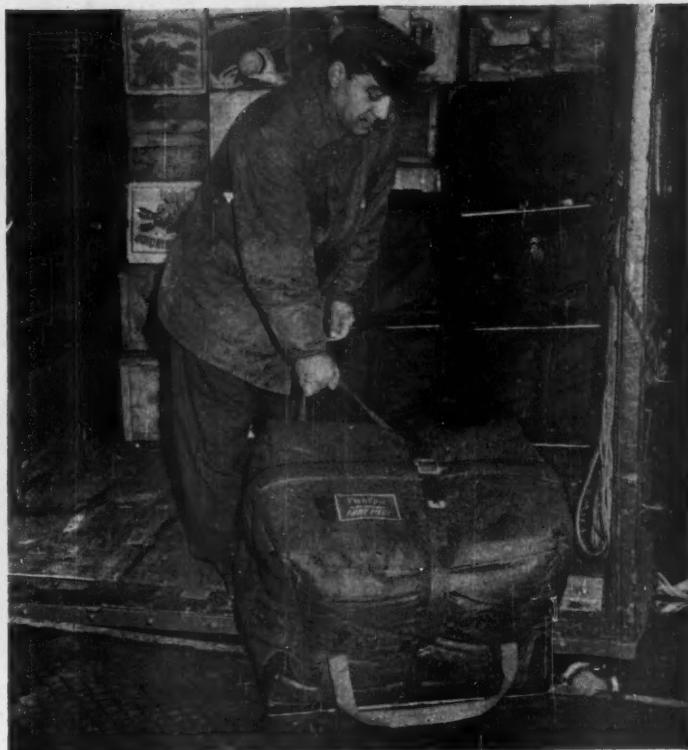
Soon they began asking questions in their classroom. Who makes a strike? What does it mean?

Said the teacher: "Let's find out." She broke the class up into three groups. One group covered strike headquarters, listened to speeches, talked to pickets. A second went to the management, got their side of the story. The third group covered the mediation meetings.

In each case, these experiences led to more questions—and the kids began reading books on things like the American labor movement to find out the answers. Finally, they sat down and had their own conference in the classroom and drew up a settlement of the strike. Their discussion developed five points they thought ought to be in the agreement.

Six weeks later, the actual Singer strike was settled. The agreement contained four of the five points the eighth-graders had arrived at in their classroom.

• **A Part of Society**—To the Elizabeth school system, this kind of experience teaches kids more about life and the society in which they live than 20 years of book learning could give them. And instead of learning the three Rs by rote, they learn them through experiences that make them stick.



Cold pack to cure a delivery headache

Getting frozen foods from the warehouse to retail stores without spoilage is a major problem for food packers and distributors. Delivery must be unusually rapid or refrigeration provided in transit. Either alternative can be extremely expensive.

This collapsible food shipper with a neoprene-impregnated fabric cover solves the dilemma... prevents spoilage and cuts delivery costs. It holds about 14 dozen packages of food and keeps them frozen for 24 hours when the outside temperature is 85°F. and eliminates the need for refrigeration.

The container manufacturer found Du Pont neoprene was the best material for his requirements. It was the only material tried that did not

harden or crack when exposed to temperatures of 20 to 30 degrees below zero in the packing room. And versatile neoprene not only waterproofs the food shipper but contributes to its durability, too. For neoprene's outstanding resistance to abrasion, oils, grease and most chemicals enables it to withstand rough handling during shipment.

For more information about neoprene, write for our booklet "Design for Success with Neoprene." It describes neoprene's properties and many of its important uses.

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Rubber Chemicals Division
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Package Machinery Co.'s Clarence F. Prince won first prize with "Birch Family."



"Homeless" by Joseph Rodowicz, National Folding Box Co., took second place.

Winners

Sirs:

I thought you might like to know who won our Packaging Exposition Amateur Art Show [BW—Apr. 14'51, p22]. I attach photographs of the two winners. They form a rather startling contrast.

F. L. TRIGGS

ADVERTISING MANAGER,
RIEGEL PAPER CORP.,
NEW YORK, N. Y.

"Service" Spelled Out

Sirs:

In your "Gas Scare" story [BW—May 5'51, p26], your quote of Con Edison responsibility is accurate as far as it goes. But you omit, to our con-



This Man's

**knowledge will save you money
and give you better protection**

This man is your local U.S.F.&G. agent. He has spent years in study and practice to thoroughly understand all forms of insurance protection.

Proper insurance protection is vital to you and your business. It requires capable, professional counsel.

For instance, there are over 22 different policies for burglary protection alone. Do you know the policy that provides the exact protection you need? This man . . . your local U.S.F.&G. agent . . . *knows!* His advice is free. Consult him today.

*To get the name of your nearest U.S.F.&G. agent or for claim service in
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AGENT OR BROKER AS YOU WOULD
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Send for FREE Brochure. Get the FREE Zippo Brochure explaining how you can have your company trade mark or other message reproduced in color on Zippo Lighters at low cost. Shows many Zippo models with prices and discounts. Send the coupon today.

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ZIPPO
The One-Zip Windproof Lighter

FREE SERVICE!

No one has ever paid a cent to repair a Zippo!

siderable disadvantage, the information that Con Edison does answer all trouble calls promptly, gas or electric, and will make repairs at established rates if asked by the owner of the appliance.

When there exists an obvious difference in definitions of the word "service," I think it is only just to have the definitions spelled out.

WILLIAM T. BRADY
DIRECTOR, EDITORIAL DEPT.,
CONSOLIDATED EDISON CO. OF NEW
YORK, INC.,
NEW YORK, N. Y.

Back to Fundamentals

Sirs:

Congratulations on your campaign to rewrite economic theory.

You have gotten off to a good start by seeking a new word for capitalism. Now you have gone even further by shaking the very foundations of economic theory when you state "Dan River should be able to create demand" [BW—Apr. 21 '51, p. 57].

You will have to excuse an old economics major who was under the impression for the last few years that demand is a "series of quantities of an economic good which, in a given market at a given time, would be purchased at a corresponding series of prices."

I think that demand depends upon both the buyer and the seller and that no one actually creates demand, but rather they may alter or change demand. If demand is a schedule of prices at a given time, etc., it follows that creation of demand by just the seller is quite a feat. More power to even BUSINESS WEEK and Mr. Newton.

JACK ROTHMAN
PORT RICHMOND, STATEN ISLAND, N. Y.

Defenders of Democracy

Sirs:

We, the members of Japan Editors' Club, witness the struggle being fought between democracy, on the one side, and communism on the other.

If we should be asked to declare our own position in this chaotic confusion and hostility, the members of Japan Editors' Club, which is the sole cultural body of its sort in this country, will declare a willingness to support democracy without a moment's hesitation.

We believe that we will be able to save our national welfare from the destructive plots of the Communists, and, in the long run, we will surely be able to donate something to world peace.

The achievement of this ambition would be strongly assured by you through your assistance in answering our questions and requests below:

(a) As to how we can fight against the Reds by cultural means, please tell us your policy or tactics. How can



What doesn't belong in this picture?

All but one of the objects in this picture have something in common. They were affected directly or indirectly by the kind of products Norton and Behr-Manning make. Can you find the stranger?

The sink? No! The metal under its porcelain coat was finished by various Norton or Behr-Manning abrasive products before it reached its present form. And its gleaming white surface was baked on by a process that calls for Norton special refractories.

The newspaper? No! Norton pulpstones ground the wood from which it's made. Norton and Behr-Manning abrasive products helped build the press that printed it.

The eggs? Surprisingly, no! Many farmers clean them with Behr-Manning coated abrasives.

Neither is it the oil refinery, the farm tractor, the fire truck, or the woodsman's saw.

The stranger in the picture is the hand-picked wildflower... just as Nature made it. Remember any man-made product... whether of metal, wood, paper, cloth, leather, ceramics, or plastics... depends on abrasives, abrasive products, refractories, or grinding machines that bear such well-known trade-marks as Norton and Behr-Manning... world's largest manufacturers of abrasives and abrasive products.

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Glue that defies the elements

I've got to know the answers. About glue! Especially for overseas shipments. Waterproof adhesives must be immune to the extremes of warm rain, icy refrigeration. Moisture-resistant glues must withstand sweating tropical humidity, dampness. And on the production line? Fast-acting adhesives must keep pace with high-speed packaging that's so vital to increased output and decreased cost.

... and that's only a glimpse!

• *"you name it...I helped make it!"* Think of all our defense preparations. Medical supplies where non-toxic, chemical-resistant adhesives must meet rigid drug and pharmaceutical codes. Bomb rings. G. I. Joe's shoes. Field rations. Guns, planes, tanks. All require adhesives. The NATIONAL touch is everywhere. Glue applied through imaginative research and service. To every item of defense.

STARCHES

National ADHESIVES

NATIONAL STARCH PRODUCTS INC.

Executive Offices: 270 Madison Ave., New York 16, N. Y. • Plants: Dunellen, N. J., Chicago, Indianapolis, San Francisco. • Sales Offices: All principal cities. • Canada: Toronto and Montreal. • England: Slough. • Holland: Veendam.

Japan cooperate with the Western Democracies in the crusade?

(b) How could the Communists appeal to the mass in your country, and what policies are there to contrast the communistic gospel with the real humanistic one?

(c) What slogans can you recommend to us? If you have effective posters, please send us some.

JUN-ICHI HOIDEN

DIRECTOR GENERAL,
JAPAN EDITORS' CLUB,
TOKYO, JAPAN

• BUSINESS WEEK will be happy to forward suggestions from readers to our Japanese colleagues.

Subjective vs. Statistical

Sirs:

Several people to whom I have routed your article and chart about "How Much It Costs to Live in 34 Principal Cities" [BW—Apr. 14 '51, p 39] took exception to it—since it has been our belief that it is more costly to live in New York than in Philadelphia. Likewise, I am told that Los Angeles is known as an inexpensive place to live, and yet it appears high on the chart.

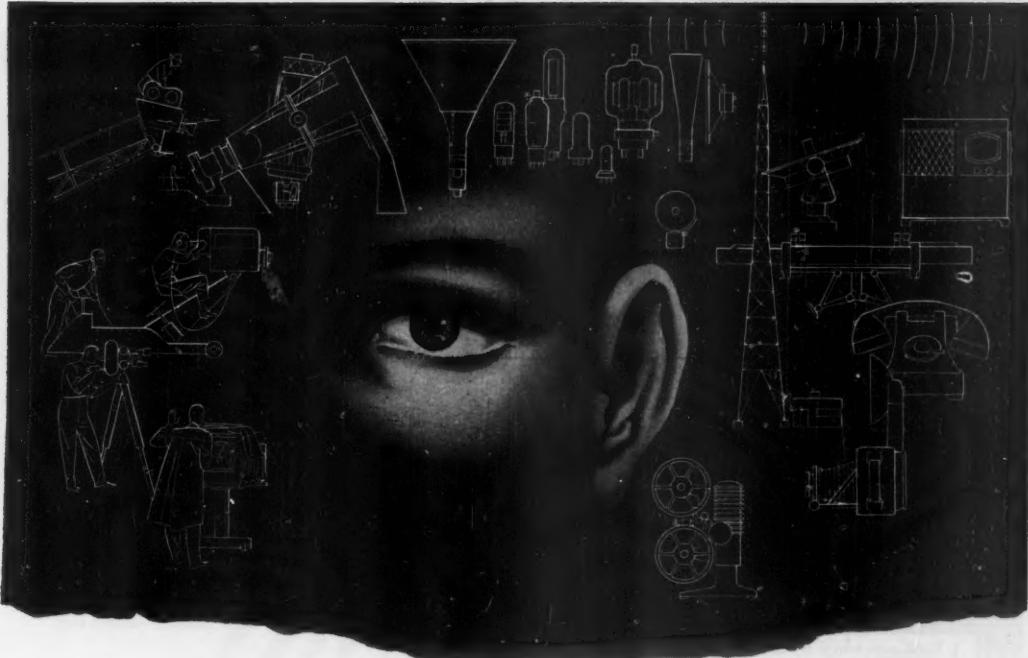
Since these figures surprised so many of us, a word from you to enlighten us about them would be appreciated.

HARRY P. ANDERSON, JR.
JOHN FALKNER ARNDT & CO., INC.,
PHILADELPHIA, PA.

• The Bureau of Labor Statistics' figures represent the comparable costs of a "modest but adequate" level of living for an urban worker's family of four, including a nonworking wife and two children under 15 years of age. For the most part, the items priced were the same for all cities. Where BLS used different items, they were chosen out of consideration for regional differences in living—the preference for one food in the south, another in the midwest, for example.

There is no breakdown available to show why differences show up from place to place. BLS reports only that housing costs are a major factor. However, in checking the figures, we find that the "estimated cost of goods, rents, and services only" for the cities shows less difference than the "total cost of budget" figures we used. That may indicate that such items as income and other taxes, insurance, and occupational expenses may cause some of the differences you noted.

Letters should be addressed to Readers Report Editor, BUSINESS WEEK, 330 West 42nd Street, New York 18, N. Y.



Here Are The World's Sights and Sounds which *Gas* helps bring into your home

DISTANCE IS NO OBSTACLE to the engineers who work with scenes and sounds. Miles are merely a challenge calling for improved methods and means of transmission. Here, in the development of these modern systems of communication, Gas continues to play another of its major roles as an industrial processing fuel.

IN RADIO AND TELEVISION the versatility of Gas is well demonstrated. The familiar tubes in receiving sets, the picture-screens of television, the giant tubes at transmitter stations—these are products of Gas-fired, glass melting tanks, forming molds, stem machines, and annealing ovens. In addition, the miles of copper wire, the thousands of filaments, and the myriad heat-treated parts of a radio or television set were processed in one of the many Gas-fired units in the production line.

FOR TELEPHONE AND CABLE manufacturing the use of Gas is so common that it's frequently overlooked. Brazing, annealing, desiccating, laminating are just a few of the many ways in which manufacturers apply Gas. Yet these

processes emphasize the virtually unlimited opportunities for efficient heat-processing with Gas.

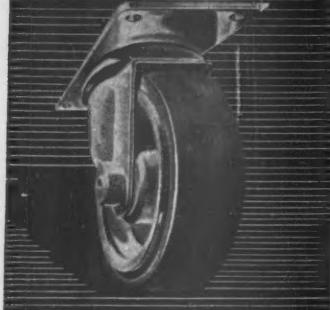
PHOTOGRAPHY AND PRINTING, two other methods of bringing you the world's sights and sounds, have at least one common bond. In the manufacture of cameras and photographic materials, and in the printing of newspapers and magazines, Gas has always been an important factor—essential in mechanical, chemical, and physical operations. To enumerate each application is unnecessary but it's in these widely varied fields of communication that the versatility of Gas is demonstrated.

FOR ANY INDUSTRIAL APPLICATION in the manufacture of communications equipment, metal products, textiles, chemicals, foods, the advantages of Gas can be readily proved. There's always a way to do production-line heating simply and economically with Gas—call your Gas Company Representative for help with your problems.

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420 Lexington Avenue, New York 17, N. Y.



FINANCE



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Colson CASTERS

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- 1 Save man-hours by moving materials faster, more easily.
- 2 Pay big dividends in reduced maintenance trouble and expense, because Colson casters are engineered and built by craftsmen — for years of trouble-free service.
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- 4 Put an end to floor damage because the load-floating, roll-easy movement of Colson casters won't scratch or mar your floors.

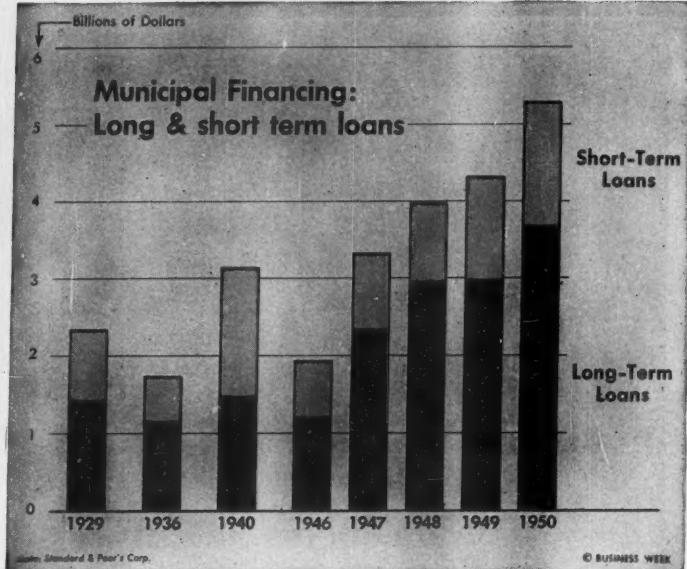
Whether you're interested in one set of smooth quiet casters or a fleet of new trucks, Colson engineers can help you select or design equipment that will answer your materials-handling problem — exactly. Write us, or consult the yellow pages of your phone book (under "Casters" or "Trucks: Industrial") for the nearest Colson office.

THE COLSON CORPORATION
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Please send free 58 page catalog — "Colson Casters"

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THE COLSON CORPORATION
ELYRIA, OHIO



BIG RISE in city and state debt reflects heavy postwar construction.

Too Much Municipal Borrowing

Inflation threat brings plea by Wilson that states and cities float no loans now for projects that can be postponed. West Virginia bonus bond offering helps bring issue to a head.

State and municipal organisms are coming under the same gun as private borrowers in the federal government's drive to cut down on the number of inflationary loans.

Defense Mobilizer Charles E. Wilson this week went to bat in a big way to back the credit restraint program. In personal letters to all state governors, the mayors of principal cities, and many county officials, Wilson urged that they "postpone borrowing, no matter how worthy the purpose, if the project is postponable."

• **Screening**—To implement his plea, Wilson asked the officials to submit all future borrowing proposals involving \$1-million or more for screening by regional Investment Banking Voluntary Credit Restraint Committees (BW-May 5 '51, p161).

Officials of the credit restraint program are convinced that nonessential spending by local governments can be just as inflationary as business expenditures. Municipal borrowing has risen steadily since 1946 (chart); much of it has been for nonessentials. Presumably, it was at the officials' request that

Wilson acted. The timing of his letter was undoubtedly influenced by the nearness of three controversial state bond offerings:

• West Virginia's \$67.5-million bond issue to finance a veterans' bonus.

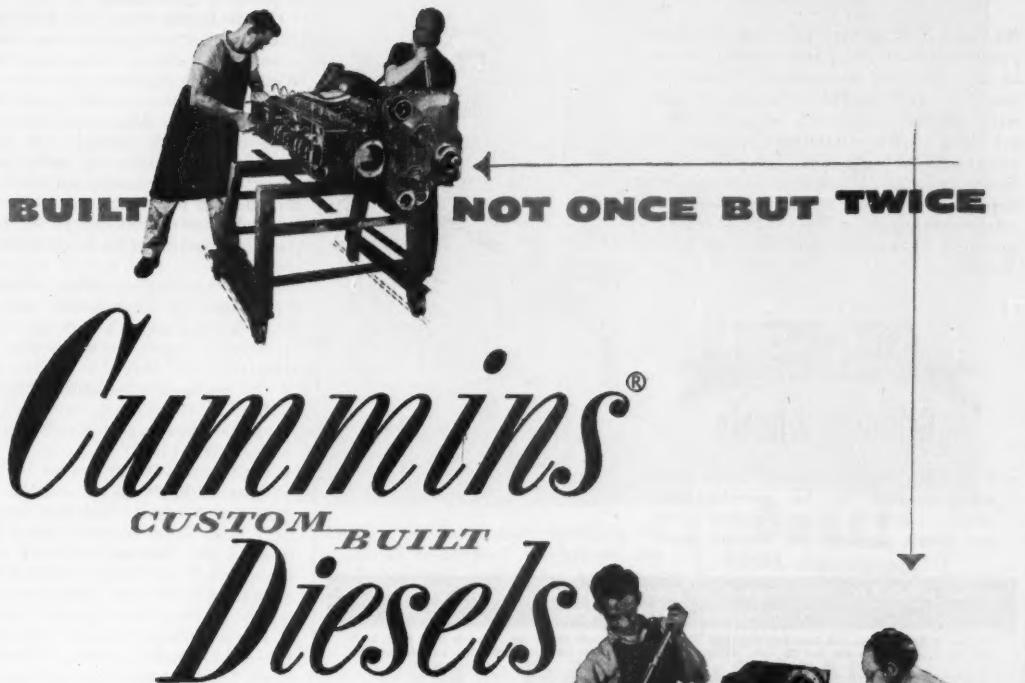
• A \$65-million Michigan issue to improve the state's hospitals and penal institutions.

• Washington state's \$60-million issue for new schools and other institutional improvements.

• **Veterans Bonus**—The proposed West Virginia offering is the hottest of the three; it's definitely inflationary by any definition. The bonus will inflate the purchasing power of the veterans, without adding to either the supply of goods or production facilities.

Up to early this week, West Virginia officials would make no comment on the subject. Indications are that they are still determined to raffle off the issue to the highest-bidding underwriting group on May 23.

If they do, they may have a disappointing day. One large buying syndicate, headed by the redoubtable Halsey, Stuart & Co., is already reported to



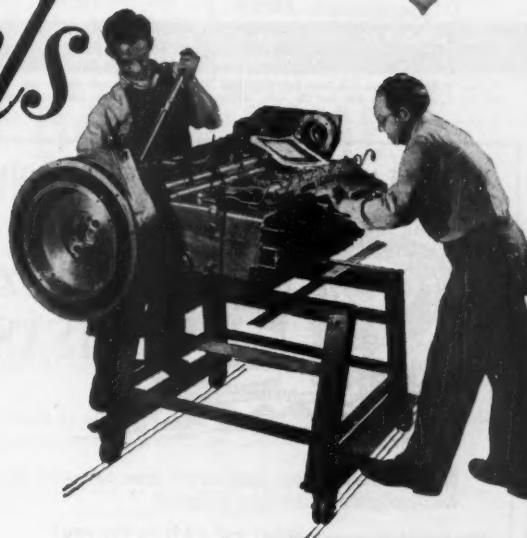
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No wonder. With Simonds Abrasive Company wheels on the job everything is rosy in the grinding department. Rejects are rare . . . and production's keeping pace with defense needs. It's all a matter of selecting wheels accurately specified for your jobs . . . the kind of selection a Simonds engineer can help your grinding department make. It costs nothing and might pay plenty to have him survey the grinding operations done in your plant. Write.

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Many a business has been saved from financial shipwreck by a well-integrated insurance program.

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have withdrawn from the running. Talk has it that other groups, too, will drop out of the bidding.

• **Denial**—In the case of the Michigan issue, state authorities also seem determined to go ahead. But unlike their West Virginia brethren, they have at least taken notice of the squalor they have kicked up. The notice took the form of a public denial that their financing would have "an inflationary effect," since "any money derived from the sale and not used immediately for hospital construction would be temporarily invested in U. S. government bonds."

The Washington State Finance Committee, like Brer Rabbit—and the West Virginia officials—just ain't talking. At last report, the committee had tentatively set May 23 for the sale of the bonds by competitive bidding. Notices of the bidding, with full information, were expected to be in the mails by May 11.

• **Wall Street**—It remains to be seen whether Wilson's appeal to state and municipal borrowers will have any effect. Wall Street fervently hopes that it will. The underwriters don't relish the position the credit restraint program has put them in—especially on the matter of local government financing.

The underwriters see no reason why they should have to handle Washington's "hot potatoes" in policing the activities of public issuers of securities. They think that the Federal Reserve Board or some other Washington agency should be called on to do the job. Some cynics even wonder if politics didn't play its part in foisting the chore on the investment banking trade.

• **Borderline**—It's not the open-and-shut cases like the West Virginia issue that bother the underwriters the most. What really worries them are the borderline cases, like the Michigan and Washington offerings.

The National Credit Restraint Committee has given this yardstick for deciding what types of local government capital outlays should not be financed now:

- Replacement of any existing facilities that can continue to perform their function during the emergency period.

- Any construction not recommended by the Defense Production Administration, such as recreational facilities and war memorials.

- Acquisition of sites or rights-of-way not immediately needed.

- Purchase by municipalities of privately owned utilities, when borrowing is needed to replace equity capital.

The West Virginia issue is obviously out of bounds, though not specifically covered by these regulations. In the case of many other offerings, however, loopholes begin to appear. Who is to

decide whether Michigan's hospital and penal systems can't go a while longer without making the \$65-million of admittedly desirable improvements? And who is to say whether Washington has a legitimate need to spend millions on schools and other improvements? Is the would-be borrower's word to be taken as the sole test for the necessity of going ahead on a project?

What about loans already approved by legislative or electoral action? Who gets the job of telling West Virginia's voters that they can't sell a bond issue approved by them two years ago? Why should West Virginia have to postpone its bonus as inflationary at the same time when the Federal Treasury is passing out about 10 times as much money to war veterans in the form of insurance refunds?

• **Unhappy Choice**—These are some of the questions that are worrying Wall Streeters as to their role in the credit restraint program. They know that they have been promised immunity from antitrust prosecution arising out of any unilateral action they might take to keep inflationary offerings off the market. But they are not happy at being thrust into a position of having to choose whether they will slam the door on callers they once welcomed and hope to be able to welcome again. Wall Streeters know that you don't make friends by turning down borrowers whose paper is ordinarily as good as gold.

Mortgage Rates Show Strong Uptrend

As expected (BW-Apr. 21 '51, p124), conventional mortgage rates have been moving up the last couple of weeks. At least that's the story in the metropolitan New York area.

• **Marked Rise**—New York home builders say they've been having to pay anywhere from 4½% to 5¼% for mortgage money. Just a few months back they had little trouble getting all the money that they needed within a 4%-4½% range.

The trend has also hit the market for "government mortgages."

Government mortgage buyers—savings and loan associations, savings and commercial banks, insurance companies, and private investors—are no longer jumping at the FHA 4½% or VA 4% mortgages offered for sale. Some VA loans have moved only when offered at discounts ranging as high as 3%. Good FHA loans, which not so long ago brought 3% premiums, are now reported to be going at par.

• **Explanation**—The reason? Obviously, the reason is the sharp dip in government bond prices, together with an in-



An 8" x 14" Automotive Blanking Die made of hi-carbon, hi-chrome, air hardening tool steel at Advance Tool Stamping & Die Co., Columbus, Ohio. Shown here being sharpened.

DoALL
COOL GRINDING
U. S. Patent 2475320
(Coolant-through-the-wheel)

NO DOWN TIME 6 MONTHS WITHOUT STOPPING

This DoALL Model G-10 Surface Grinder has been running day and night continuously for 6 months without any "down" time. A great many dies similar to the above are made and maintained in this modern shop. Machining on the DoALL is so smooth that polishing is not necessary.

Cool Grinding—Cools the Cut and the Work

A patented technique used with DoALL Grinders exclusively, produces more accurate finishes in much less time and cutting edges that last longer.

Full Visibility

You can see the work at all times. No messiness from old style coolants. Splash guards unnecessary.

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Base and column support cast as one piece. DoALL Grinders are massive and rigid. Model G-10 weighs 3350 pounds.

Precision Plus

DoALLs are built extremely accurate as to flatness, parallelism, dimensional control and surface finish.

SEE ONE WORK. Call your local DoALL Store today. They'll arrange a demonstration — without obligation — of this revolutionary Surface Grinder and Cool Grinding.



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Water
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• Whether in office or plant, Feeders Electric Water Coolers contribute to health and efficiency of workers everywhere. Long experience and research by medical, production and labor authorities prove the importance of ample, accessible and perfectly cooled drinking water.

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Cool, refreshing, appetizing drinking water is necessary to health.

Accessibility saves time. Workers needn't walk and "down time" for a drink of water.

Bottle and hubbler models available for permanent and portable installations.

Hermetically sealed refrigeration units lubricated for life.

Feeders 5-year Protection Plan guarantees performance.



**Mail this Coupon to
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Dept. BW-13—57 Tonawanda St.
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Kindly send specifications of Feeders Electric Water Coolers to my personal attention.

Name.....

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Street.....

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creasing shortage of lendable funds. The government bond drop has had a double impact. First off, it has caused a rise in rates in all sections of the money market. Secondly, it added to

the shortage of mortgage money, since such large mortgage buyers had been getting much of their cash through sales of their government bond holdings. Now they can sell only at a loss.

Bigger Billion-Dollar Clubs

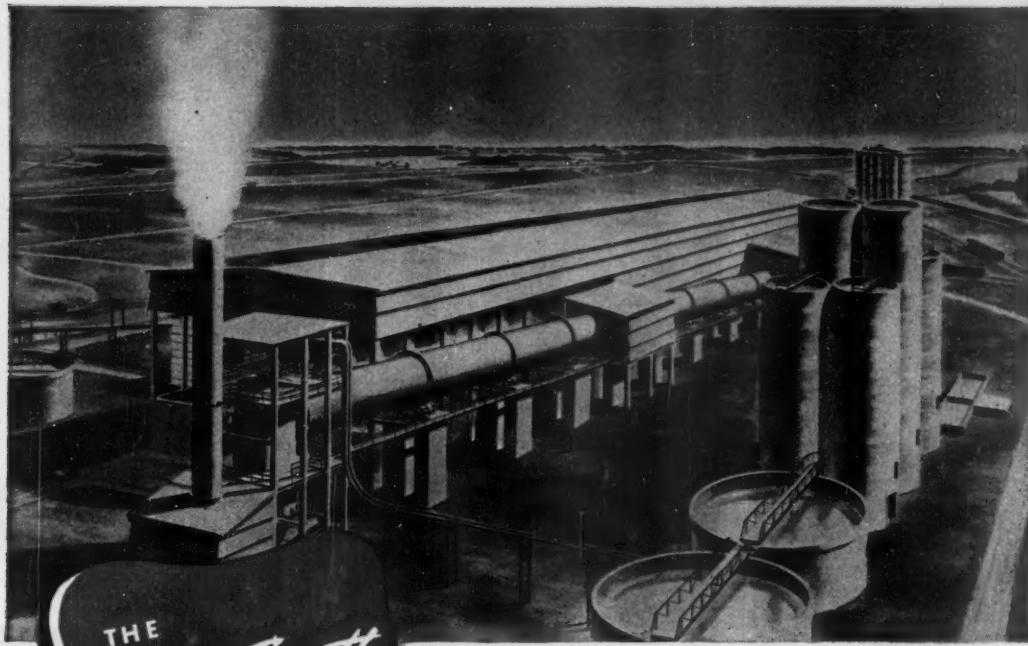
The corporate Billion-Dollar Club took on another member last year. The newcomer, Sears, Roebuck & Co., has grown faster since 1939 than any other nonfinancial company whose net assets are now over \$1-billion. That brings the number of club members to 22, compared to 21 at the end of 1948 and 12 in 1939.

Two more companies joined the group who ring up over \$1-billion in sales annually. Gulf Oil Corp., which had been in the list for 1948, returned. And Westinghouse Electric Corp. came in for the first time. That makes a new high of 19 companies, compared with 17 in 1948, only ten in 1946, and only two in 1939.

	Assets as of Dec. 31, 1950	Assets as of Dec. 31, 1939	% Growth Since 1939
	(In Millions of Dollars)		
Bell Telephone System.....	\$9,750	\$3,218	203.0%
Standard Oil (N. J.).....	4,188	2,035	105.8
General Motors Corp.....	3,444	1,323	160.3
U. S. Steel Corp.....	2,829	1,769	59.9
Pennsylvania R.R.	2,217	2,018	9.9
Southern Pacific System.....	1,854	1,646	12.6
New York Central R.R. Co.....	1,843	1,631	13.0
Standard Oil Co. (Ind.).....	1,640	723	126.8
Socony-Vacuum Oil Co.....	1,610	930	73.1
E. I. du Pont de Nemours & Co.....	1,472	736	100.0
Texas Co.	1,449	661	119.2
Atchison, Topeka & Santa Fe Ry.....	1,379	1,116	23.6
Gulf Oil Corp.....	1,344	523	157.0
*Ford Motor Co.....	1,343	692	94.1
Consolidated Edison Co. (N. Y.).....	1,329	1,024	29.8
Bethlehem Steel Corp.....	1,314	733	79.3
General Electric Co.....	1,277	434	194.2
Union Pacific R.R.....	1,247	1,101	13.3
Baltimore & Ohio R.R.....	1,243	1,110	12.0
Standard Oil Co. (Cal.).....	1,233	629	96.0
Pacific Gas & Electric Co.....	1,111	657	69.1
*Sears, Roebuck & Co.....	1,033	324	218.8

	Sales or Revenues 1950	Sales or Revenues 1939	
	(In Millions of Dollars)		
General Motors Corp.....	\$7,531	1,377	446.9
Bell Telephone System.....	3,262	1,107	194.7
Standard Oil Co. (N. J.).....	3,135	934	235.7
U. S. Steel Corp.....	2,947	846	248.3
*Great Atlantic & Pacific Tea Co.....	2,905	990	193.4
*Sears, Roebuck & Co.....	2,556	617	314.3
*Swift & Co.	2,214	757	192.5
Chrysler Corp.	2,191	550	298.4
General Electric Co.	1,960	396	394.9
*Armour & Co.	1,860	715	160.1
Bethlehem Steel Corp.	1,440	414	247.8
Socony-Vacuum Oil Co.	1,367	496	175.6
E. I. du Pont de Nemours & Co.	1,310	299	338.1
Standard Oil Co. (Ind.)....	1,303	344	278.8
Texas Co.	1,249	365	242.2
*Montgomery Ward & Co.	1,170	475	146.3
*Gulf Oil Corp.	1,150	277	315.2
Safeway Stores, Inc.	1,101	306	259.8
*Westinghouse Electric Corp.	1,020	175	482.9

*Not in the club for year ending Dec. 31, 1949. ¹For Dec. 31, 1949; 1950 figures not available. ²Fiscal years ended February, 1950 and 1940. ³Fiscal years ended January, 1951 and 1940. ⁴Fiscal years ended October, 1950 and 1939.



Marquette Cement Company plant now under construction in Rankin County,
near Brandon, Mississippi—another United Gas industrial customer.

THE
Gulf South

... where Industry gets IN PRODUCTION—FASTER!

American industry is again being called upon to arm the free world. Every minute counts in this world-wide test of private enterprise against statism. That's one reason why more and more new plants are being located in the Gulf South, where vast reserves of men and materials, plus a mild, year-round working climate, help industries to get in production—faster!

Production-minded industrialists recognize the advantages offered in the Gulf South. By the end of 1950 they had announced plans, according to Engineer-

ing News-Record, to invest more than a billion dollars in new industrial plants in the area served by our company. That's more than all the industrial construction in the New England and Middle Atlantic States since V-J Day.

Our share in this huge expansion program is to assure Gulf South industry a continuing supply of dependable, low-cost natural gas fuel. If fuel is a problem in your operations, communicate with our Industrial Development Director, P. O. Box 1407, Shreveport, La.

UNITED GAS
SERVING THE



Gulf South



COOKING for the Farm Bureau Insurance feast started the night before. First, wood and charcoal were burned in pits, then the red coals were covered with sand. At midnight, wrapped chunks of beef were put in. Pits were sealed with tin roofing and earth.



PREPARING the vittles came 11 hr. later, when beef was taken from the pits.



EATING in the Agricultural Building, these people disposed of 20,000 beef sandwiches, 50 gal. of relish, 360 bottles of catchup, a ton of baked

Insurance Party: Barbecue for 8,000

The rural touch was strictly a must when the Farm Bureau Insurance companies decided on a big shindig to celebrate their 25th anniversary and to dedicate a new office building in Columbus, Ohio.

After all, the three companies had started out selling auto, fire, and life insurance to farmers; they didn't tackle the city-folk market till later. To get their party started, the Farm Bureau Insurance companies decided on a big

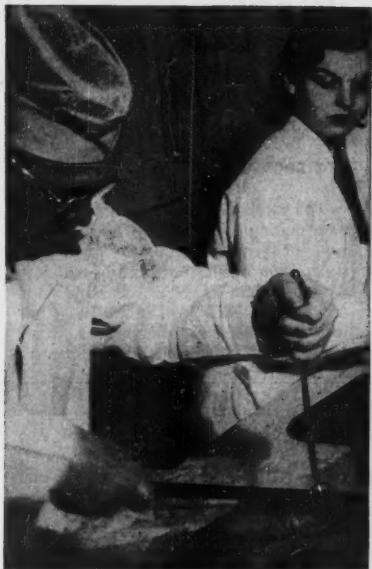
one-day reunion of the 2,500 home office employees, 1,400 branch office workers in other states, 3,000 field representatives, and guests from Ohio farm organizations.

But how to feed, much less accommodate, a crowd of over 8,000 people? The answer was a beef barbecue on the Ohio State Fair Grounds in Columbus (pictures), followed by a meeting in the fair grounds' Coliseum.

At the Coliseum, President Murray

D. Lincoln served up another tasty morsel. He told the crowd that the Farm Bureau companies had just purchased stock control of the National Casualty Co., Detroit. That rounds out the Farm Bureau picture, since National writes a general line of casualty insurance.

A small company, National has admitted assets of about \$15-million, as against the Farm Bureau companies' \$99-million. However, its acquisition



SERVING the 8,000 people was done in 2 hr. by 20 carvers, 110 sandwich makers.



beans, 7,000 half-pints of milk, and 3,000 bottles of orange drink. With all that provender stuffed inside them, the crowd held a meeting.

will greatly broaden the Farm Bureau group's service area. While it operates in only 12 states now, the Detroit company does business in all 48.

In the Farm Bureau setup, the auto and fire companies are mutuals, owning stock control of the life company. By far the largest unit is the auto insurance company, with over 1-million policyholders. It was started in 1926 by farm leader "Uncle" George Cooley, along lines similar to State Farm Mutual Insurance Co., Bloomington, Ill. (BW-Jun.10'50,p102). The fire insurance company has about 250,000 policyholders.



Expanding Again . . . with Quonsets!
Successful experience with this large Quonset plant at Delaware, Ohio, has prompted Ranco, Inc., manufacturers of thermostatic controls, to build a new Quonset plant at Plain City, Ohio.

Build *Quicker* with **QUONSETS**

IDEAL FOR FACTORIES, WAREHOUSES, MACHINE SHOPS OR STORAGE BUILDINGS

For additions to your present plant—or for new plants—Quonsets mean fast completion, economy of materials, adaptability to any use. Also, should plants need more expansion later, you can add Quonset to Quonset, according to the need.

STRAN-STEEL AND QUONSET REG. U. S. PAT. OFF.

Made of N-A-X HIGH-TENSILE steel, Quonsets provide non-combustible construction and permanence far surpassing less modern buildings. They require little upkeep—are easily maintained. Let Quonsets serve you now. Write us today.

GREAT LAKES STEEL CORPORATION
Stran-Steel Division, Ecorse, Detroit 29, Mich.

PRODUCED BY
NAX
HIGH-TENSILE STEEL

Expansion Completed in 32 Days! Quonset 40 by 240 feet increased facilities quickly for General Gas Corporation Baton Rouge, La.



NATIONAL STEEL CORPORATION





AMMONIA and METHANOL PLANT

Morgantown Ordnance Works, Morgantown, West Virginia

Ammonia & Methanol Plant—Capacity per month: 18,700 tons of anhydrous ammonia, or 4,000,000 gallons of refined methanol plus 5,000 tons of anhydrous ammonia.

Hexylamine—Capacity per month: 4,000,000 lbs.

Formaldehyde—Capacity per month: 5,200,000 lbs.

COKE OVENS—74 Wilputte under-jet by-products ovens.

Capacity per month approximately 35,000 tons. Will be turned over to successful bidder in operating condition. Bids are being solicited on the following basis:

- a. The entire plant.
- b. The plant without the coke ovens.
- c. The coke ovens alone.

BIDS WILL BE OPENED 14 June 1951

District Engineer
Louisville District, Corps of Engineers
830 West Broadway, Louisville 1, Kentucky

CHLORINE and CAUSTIC SODA PLANT

Redstone Arsenal, Huntsville, Alabama

Hooker Type S Chlorine Cells, capacity per day: 100 tons, with an equivalent amount of caustic soda.

Buildings completely equipped. Excellent transportation facilities. Machinery, equipment and utilities in operating condition. Facilities are presently leased to Solvay Process Division, Allied Chemical & Dye Corporation. New lease will be effective 15 December 1951.

BIDS WILL BE OPENED 11 June 1951

District Engineer
Mobile District, Corps of Engineers
2301 Grant Street, Mobile 7, Alabama

Leases will be consummated through competitive bids. Sealed bids for the lease of these facilities will be received at the office of the District Engineer having jurisdiction. Detailed information, arrangements for inspections and bid forms may be obtained from the Real Estate Division of the District in which each plant is located.

CORPS OF ENGINEERS

U. S. ARMY
WASHINGTON, D. C.



Insurance Failure

Drop in government bonds was final straw for Preferred Accident of New York. Policies are secured.

You rarely hear of an insurance company failing these days. The combination of general prosperity and close supervision by state authorities makes it hard for them to get into trouble. But last week a New York State judge directed Insurance Superintendent Alfred J. Bohlinger to take over the property of Preferred Accident Insurance Co. of New York. Bohlinger will act as liquidator.

• **Long Struggle**—This brings to an end a long string of efforts to keep Preferred going. The company, nearly 60 years old, wrote a broad variety of casualty insurance in 47 states. For several years it had been suffering high losses in its underwriting operations.

What finally finished Preferred off, ironically, was its conservative investment policy. The company had an unusually high proportion of its assets in government bonds—unusually high for a property insurance company, that is. The sharp break in the government-bond market caused a loss of about \$450,000 in the amortized value of its bonds, as carried on its Feb. 28 statement. That more than wiped out Preferred's surplus.

• **Beginning of the End**—Preferred first got into trouble back in 1947 when the New York insurance department found that the company's capital and surplus had been entirely wiped out by underwriting losses. It no longer had any financial cushion if insurance claims and other obligations should happen to exceed earned premiums.

However, Reconstruction Finance Corp. kept the carrier going. RFC made \$8-million in loans to the company from 1947 to 1949. So the company's 1949 year-end statement showed a surplus of nearly \$3.3-million.

But by June 30, 1950, surplus had declined to about \$2.3-million. The New York insurance department then checked to see why Preferred was losing money again. It found that the reserves the company had set up to meet future claims were inadequate, so that it had to draw heavily on surplus. Examiners found that an unusually high proportion of the premiums the company received were swallowed up by the expenses of getting and servicing the business. The department naturally felt this showed bad management.

• **No Help From RFC**—So Superintendent Bohlinger arranged a series of meetings with RFC, hoping for new loans

on condition a new management took over Preferred. He tried to get other insurance companies to take over parts of Preferred's business. And he tried to get private financing for the company.

By mid-March it was obvious that RFC would loan no more money and that no other financing was possible. By this time, insurance officials in several other states were telling Preferred it would have to stop writing new business in their states.

• **Last Straw**—Then came the break in the bond market. Bohlinger asked for a court order to take over Preferred. The company asked for a postponement until May 10, when it expected RFC would be under new management and might be disposed to make another loan. Bohlinger pointed out that any delay would injure the company's policyholders and creditors. He estimated that Preferred was losing money so fast that by May 10 assets would have dropped another \$250,000.

• **Handout**—At this point, Mutual Benefit Health & Accident Assn. of Omaha took over Preferred's accident and health policies. No money changes hands on the deal. Mutual Benefit becomes liable for claims at once, though it gets no premiums from policyholders till the next premium date. Mutual Benefit figures that the saving it has made in getting this business on its books for nothing will more than counterbalance any claims it may have to pay in the interim period.

FINANCE BRIEFS

Consolidated Textile Co. is making progress in its attempt to get more of the common stock of Bates Mfg. Co. by an exchange of stock (BW-Mar. 17 '51, p124). Consolidated says it has picked up 142,000 of the 200,000 shares it wanted. That boosts its Bates holdings from 13% to over 21%. Consolidated has extended its stock offer until June 29.

Off-the-job insurance rates (BW-Jan. 7 '50, p70) have been cut for New York workers insured by the state insurance fund. Effective July 1, the rate for men will be cut 20%, for women about 9%.

Denver & Rio Grande Western R.R. is asking permission to abandon the last 30 mi. of passenger service on its scenic narrow-gauge line (BW-Nov. 26 '49, p82). The other 170 mi. was abandoned several months back.

Lower auto physical damage rates (collision, fire, and theft) have been O.K.'d by the Massachusetts insurance department. The cut is expected to save policyholders about \$1-million a year.



National Acme Company, Cleveland, reduces cost of cams and gears. One of the first steps in production of Acme cams is splitting the ring shown above into segments. DoALL MP-20 makes cut through $9\frac{1}{4} \times 1\frac{1}{8}$ " wall thickness in three minutes.



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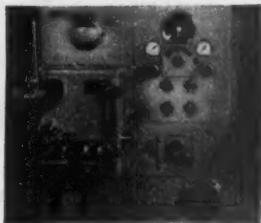
Tough alloy gear $1\frac{1}{4}$ " thick is split in 16 minutes "floor to floor time." MP-20 provides required band speed and feed pressure.

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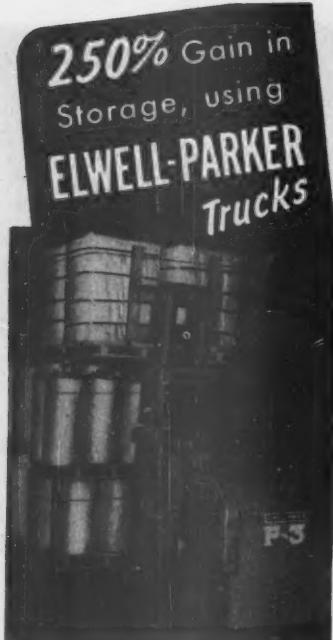
MACHINE POWER—Preliminary metal removal and shaping by hydraulic powered band machining technique saves time of more costly machines. Expanded speed range and new Band Tools cut any material.

MATERIAL—Band Machining technique cuts directly to layout line, removing surplus metal in usable form in record time. Reduces scrap loss—less chips, less waste.

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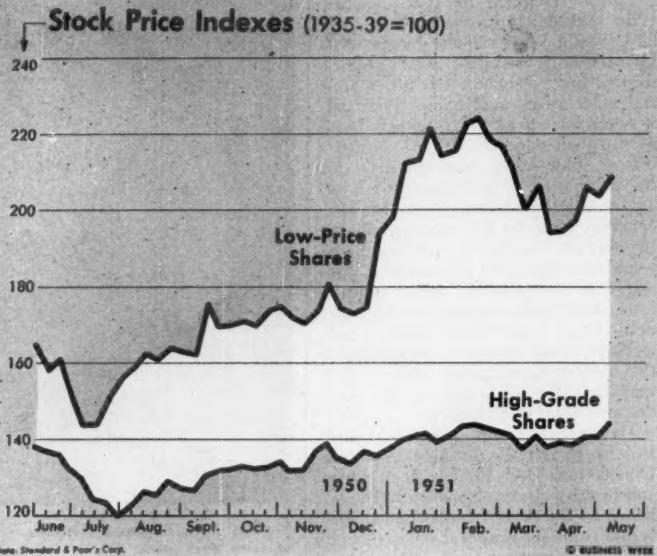
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THE MARKETS



Speculators Stay Out

While Standard & Poor's high-grade index hits new high, low-priced stocks lag. Some analysts think that shows the bull market is running down since speculative fever is low.

It's an extraordinary market Wall Street has these days. The Dow-Jones industrials have reached a level not seen in a rising market since late 1928. Yet to many analysts, the market looks tired out.

Volume of trading continues to be light. Most of the buying seems to be coming from institutional investors. The "public," composed of the speculatively minded, unsophisticated buyers, is not in the market in force. Brokers will tell you their newspaper ads, in many cases the same ones that drew big responses in January, aren't attracting many inquiries now.

• **Index to Watch**—Standard & Poor's index of low-priced stocks, including rails, is a good thermometer to use in gauging speculative fever. And from the way this index has been acting in recent weeks (chart), quite a few analysts judge that the market has reached its top for some time to come.

While S&P's index of high-grade shares has reached a new high, above its peaks of 135.5 in 1946 and 137 in 1929, the low-price index stands at only 66% of its 1946 high and at only 60% of its 1929 mark.

In a bull market, this definitely is not a healthy sign. It's usually a sure indication that speculative buyers, at least, think that the bull is getting tired out.

• **Fast On and Off**—When a bull move is on, speculators jump aboard the cheap stocks because they can make a quicker profit on them. A \$3 stock that goes to \$5 nets a 40% gain for its owner. At the same time, a \$50 stock may go to \$55 and bring in only a 10% profit if it is sold. But as fast as speculators get on to low-priced shares, they also sell out of them when things look wrong. That drives the low-price index down a lot faster than the high-grade index.

• **Possible Parallel**—One market observer who has a pretty good record of calling the shots likens this year's bull market to 1946. Then the Dow-Jones industrials and rails made a postwar high in February and slumped in March. In April the industrials came back, but the rails lagged as they are doing this year. It wasn't till mid-June that rails had passed their February level. But by then, the industrials had already topped off at 212.50. And

both averages went down fast after that.

- Still Conservative—But perhaps 1946 isn't much of a parallel after all. One veteran analyst who thinks the market is going higher calls attention to the fact that even at 260, the Dow-Jones industrial average is still selling at only

about 8.6 times 1950 earnings of \$30.70. That's a lot more conservative than the 15.7 price-earnings ratio reached at the top of the 1946 bull market. In fact, it's a lot more conservative than other bull market price-earnings ratios since at least 1925.

Working Capital Up \$5.7-Billion

Business appears well-heeled for whatever war production job lies ahead. According to Securities & Exchange Commission estimates released this week, its working capital kitty stood at a record-breaking yearend figure on Dec. 31, 1950.

SEC estimates that working capital of all U.S. corporations (excluding insurance companies and banks) shot up some \$5.7-billion in 1950 to around \$75.8-billion. The total is more than three times the size of similar funds at the start of World War II 12 years ago.

All's not gold that glistens, however. The SEC report disclosed

several new unfavorable trends that may well bear watching.

In the last quarter, current liabilities rose faster than current assets; corporate working capital actually dipped during the period. Further, current assets at the end of 1950 were barely twice as great as current debts, whereas at 1949 yearend they covered debts 2.2 times. Cash and government bond holdings together equaled less than 63% of current liabilities compared with a 72% ratio a year earlier.

Here's SEC's report covering the growth of corporate working capital since 1939:

Current Assets

Dec. 31	Cash	Government Securities	Receivables	Inventories	Other Current Assets	Total
1939	\$10.8	\$2.2	\$22.1	\$18.0	\$1.4	\$54.5
1940	13.1	2.0	24.0	19.8	1.5	60.3
1941	13.9	4.0	28.0	25.6	1.4	72.9
1942	17.6	10.1	27.3	27.3	1.3	83.6
1943	21.6	16.4	26.9	27.6	1.3	93.8
1944	21.6	20.9	26.5	26.8	1.4	97.2
1945	21.7	21.1	25.9	26.3	2.4	97.4
1946	22.8	15.3	30.7	37.6	1.7	108.1
1947	25.0	14.1	38.3	44.6	1.6	123.6
1948	24.9	14.3	40.8	49.3	1.6	130.8
1949	25.9	16.3	40.3	44.6	1.4	128.6
1950	26.9	19.9	50.0	51.9	1.7	150.5

Current Liabilities

Dec. 31	Accounts and Notes Payable	Taxes Payable	Other Current Liabilities	Total
1939	\$21.9	\$1.2	\$6.9	\$30.0
1940	23.2	2.5	7.1	32.8
1941	26.4	7.1	7.2	40.7
1942	26.0	12.6	8.7	47.3
1943	26.3	16.6	8.7	51.6
1944	26.8	15.5	9.4	51.7
1945	25.7	10.4	9.7	45.8
1946	31.6	8.5	11.8	51.9
1947	37.6	10.7	13.2	61.5
1948	39.3	11.7	13.2	64.1
1949	35.6	9.8	13.1	58.5
1950	44.5	15.5	14.7	74.7

Net Working Capital

Dec. 31	(Billions of dollars)		
1939	\$24.5	1945	\$51.6
1940	27.5	1946	56.2
1941	32.3	1947	62.1
1942	36.3	1948	66.7
1943	42.1	1949	70.1
1944	45.6	1950	75.8

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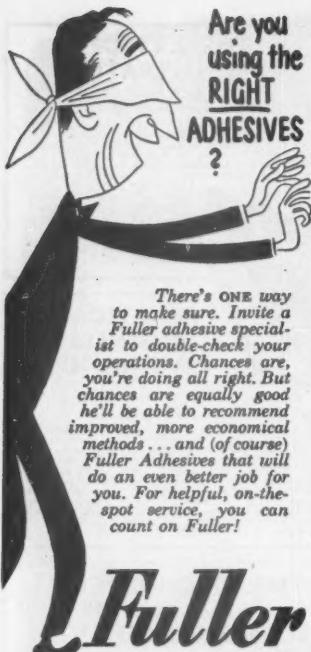
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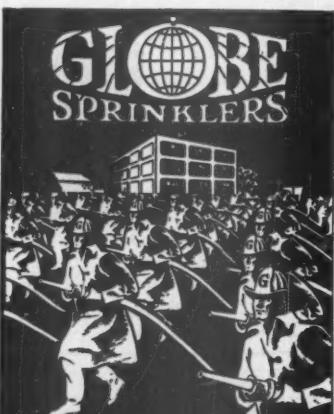
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DEFENSE BUSINESS

Threat to Quick Writeoffs

DPA argues that in figuring costs for defense contracts companies may not amortize costs of new plant at 20% rate. Wilson and Defense Dept. will probably overrule DPA.

The Defense Production Administration has struck off on a policy of its own on pricing defense contracts—and the result threatens to deprive contractors of the benefits of fast amortization.

• **Repeal of Writeoffs**—DPA officials are insisting that contractors use normal depreciation rates—not fast writeoffs—in computing the prices of military items in negotiated contracts. Instead of letting a company that has a certificate of necessity include 20% of the cost of a new plant each year in figuring its total costs, DPA wants to limit it to the standard rate—usually 5%.

If that policy stands, it will, in effect, repeal the privilege of fast amortization for tax purposes afforded by Congress—because it doesn't do a contractor any good to be able to take 20% amortization as a tax deduction if that would make his deductions bigger than his income.

DPA officials' primary aim isn't to take the sugar out of fast amortization; they are just interested in keeping contract prices down.

• **Dishonesty Might Pay**—DPA's policy applies to original pricing only; the Renegotiation Act of 1951 specifically allows use of fast writeoffs in renegotiation. But that doesn't help the contractor any—at least, not the one who figures his other costs honestly—because renegotiation is a one-way street. It can force a contractor to cough up a refund to the government, but it can't award him any additional money from the government.

So, under the DPA rule, the only way a contractor can cash in on his certificate of necessity is to be dishonest and pad his labor, material, and overhead estimates to balance the amortization DPA won't allow him. That way, when the renegotiators start to squeeze the water out of those costs, he can use the extra amortization to offset it.

• **Harrison Started It**—The whole snafu started about a month ago, when William H. Harrison, then head of DPA, told a congressional committee he didn't think fast amortization should be allowed as a cost in defense contracts. His words carried considerable weight because DPA and its superior agency, the Office of Defense Mobilization, have broad policy-making authority

over all phases of the defense effort. Harrison went even further—a few days later he wrote Defense Secretary George Marshall along the same lines and suggested that this policy be made a directive to all contracting officers.

Since then, the issue has been up in the air, with ODM, DPA, the Pentagon, and several committees of Congress all taking part in the argument. The Pentagon does not go along with the DPA idea. Defense Dept. officials want to see rapid amortization used to compute initial prices as well as in figuring renegotiation. Indeed, they have already signed contracts that permit taking the full 20% a year.

The argument could be settled either by Congress or by the Office of Defense Mobilization. Rep. Herman Eberhardt already has introduced a bill to take rapid amortization out of the Renegotiation Act. While it appears that this would clash with Congress' intent in setting up accelerated amortization in the first place, it would at least make DPA's position legal.

But there's not much chance of Eberhardt's bill getting through. The Hardy subcommittee of the House Executive Expenditures Committee is looking into the whole question of fast writeoffs. In its report, which is due next week, it is sure to side with the Defense Dept.

• **Up to Wilson**—This leaves the issue up to ODM boss Charles Wilson. It is probable that Wilson will side with Defense. He wants to keep defense contractors happy.

And anyway, Wilson's people feel that DPA wouldn't really be taking its present stand if it had thought the whole problem through to renegotiation.

Printing Survey

Commercial printing facilities are the subject of a nationwide survey ordered by NPA—to be conducted by a task force of NPA's Commercial Printing Industry Advisory Committee. The industry hopes to prove its contention that there is enough printing capacity to handle the forthcoming load without any expansion of government printing plants.

CHECKLIST Of Defense Regulations

The following listing and condensed descriptions cover all the material and price-control regulations issued by the defense agencies during the preceding week.

Full texts of the materials orders may be obtained from National Production Authority, Washington 25, or from any Dept. of Commerce regional office.

Full texts of the price orders may be had from the Office of Price Stabilization, Washington 25, or from the regional OPS office in your area.

Materials Orders

Molybdenum: Requires filing of applications for allocations of all forms of molybdenum except metal powder, wire, rod, or sheet no later than the seventh day of the month preceding that in which delivery is asked. M-33 as amended (May 1).

Steel strapping: Prohibits use of strapping on light packages shipped short distances, but allows 14 exceptions. Limits inventories to 45 days, permits any user to have 1,000 lb., and exempts inventories of defense agencies. Order M-59 (May 1).

Chemicals: Adds carbon tetrachloride, methylene chloride, perchlor-ethylene, and freon 11, 12, and 22 (refrigerant chemicals) to list in basic chemical order. List specifies amount of advance notice (lead time) products must have to fill priority orders. M-32 as amended (May 1).

Tin cans: Prohibits any packer's consumption of tin plate or ferneplate cans from exceeding that of the base-period date provided by the basic order. M-25, Direction 1, as amended (May 1).

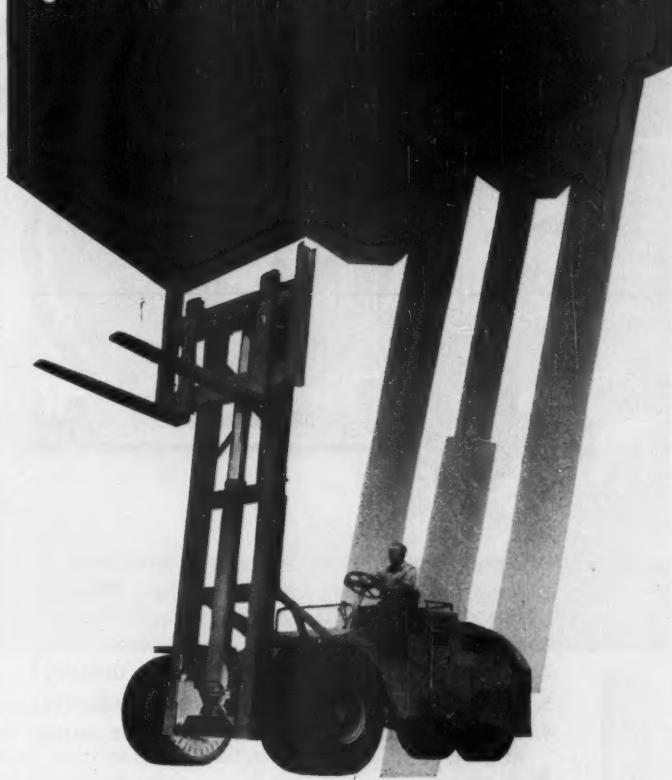
Rubber: Increases May civilian rubber consumption to 100% of its adjusted base period and sets aside 97,100 long tons, including natural latex, for many civilian uses in May. M-2 as amended (May 1).

Foreign MRO: Permits exporters to use D.O.-97 priority rating in getting replacement parts and accessories for machinery and equipment for shipment to friendly foreign countries during May and June. NPA Reg. 4, Direction 2.

Electric utilities: Extends until June 1 the right of electric utility companies to use materials now on hand in making major plant additions without DEPA approval. M-50 as amended (May 1).

Aluminum windows: For months of May and June, permits manufacturers of certain types of prime-aluminum windows and frames to use 65% of

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their monthly average consumption of aluminum during the first half of 1950. M-7 as amended (May 1).

CMP Reg. 1 and 3 (May 4): Reg. 1 defines rights and obligations under Controlled Materials Plan, explains authorization of production schedules for manufacturing operations and how controlled materials will be allotted. Reg. 3 establishes relative preference status of delivery orders for controlled and other materials.

Automobiles: Reduces use of steel for manufacture of passenger automobiles and station wagons for June from 80% to 75% of the rate of use in first six months of 1950. M-47 as amended (May 4).

Aluminum closures: Requires that a packer include in his inventory count both closures in his possession and those held by others for his account until the closure is used on a container. M-26 as amended (Apr. 6), Interpretation 1.

Construction: Requires authorization for construction of large apartment houses, luxury residences, and all industrial facilities, and public and private construction projects requiring the use of more than 25 tons of steel. M-4 as amended (May 3).

Tubular goods: NPA and Petroleum Administration for Defense allots 13,200 tons of oil country tubular goods for distribution to petroleum operators during third quarter of 1951 for drilling oil and gas wells in Canada.

Pricing Orders

Containers: Permits American Can Co. and Continental Can Co. to increase prices for leasing container-closing machines to compensatory levels. Effective Apr. 30. GCPR Suppl. Reg. 22 (May 1).

"Care": Exempts sales and distribution of "Care" relief packages from ceiling price regulations. Effective May 1. General Overriding Reg. 6, Amend. 1.

Motor carriers: Authorizes OPS regional directors in Massachusetts, Colorado, and California to adjust ceiling rates for within-state services of motor carriers under GCPR. Effective May 1. GCPR Suppl. Reg. 23 (May 1).

Lake coal: Permits lake coal dealers to add to their ceiling prices the increases authorized in CPR 3 and 4 to reflect increased wage costs. Effective May 1. CPR 27 (May 1).

Tidewater coal: Authorizes tidewater coal dock dealers to increase their ceiling prices on each size or grade of coal handled by them by the exact amount of any increased rail or water transportation costs between Jan. 1 and June 30, 1951. Effective May 1. GCPR Suppl. Reg. 4, Amend. 1.

Transportation: Prohibits a manufacturer quoting delivered prices from making adjustments for rail or water

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freight-rate increases authorized by ICC Mar. 12. CPR 22, Interpretation 1 (May 1).

Nickel scrap: Cuts back ceiling prices on pure nickel scrap to a base of $40\frac{1}{4}$ ¢ a lb. and adjusts ceiling for scrap materials containing nickel. Effective May 8. CPR-29 (May 3).

Inland water carriers: Includes all domestic inland water carriers operating in northern part of the U.S. in the regulation permitting domestic Great Lakes water carriers to operate under contract prices made before Jan. 25, 1951, for the 1951 season. Effective May 2. GCPR, Suppl. Reg. 12, Amend. 1 (May 2).

Cotton, linen, and underwear cuttings: Sets specific dollars-and-cents ceiling prices for 87 grades of sorted cuttings sold to consumers. Effective May 7. CPR 28 and General Overriding Reg. 8 (May 2).

Mica and tungsten: Exempts from price control the sales of raw mica, mica parts, and tungsten ores, also sales to federal agencies of tungsten concentrates produced from foreign ore. Effective May 1. General Overriding Reg. 9 (May 1).

Automobiles: Extends price ceilings on passenger cars indefinitely and furnishes a formula for adjustment of manufacturers' prices to take into account the ban on spare tires and tubes. Effective May 1. CPR 1, Amend. 2 (May 1).

Blackstrap molasses: Sets ceiling of 22¢ a gal. on blackstrap molasses from Puerto Rico and Virgin Islands. Effective May 8. GCPR, Suppl. Reg. 24 (May 3).

Machinery: Covers a variety of equipment exempted from General Manufacturers Order CPR 22. Effective May 28. CPR 30 (May 4).

Imports: Provides price controls on imported goods other than strategic materials. Effective May 9. CPR 31 (May 4).

Special deals: Permits adjustment of ceiling prices for manufacturers and wholesalers whose prices are abnormally low because of a "special deal" in effect during the period Dec. 19, 1950, to Jan. 25, 1951. Effective May 4. GCPR Suppl. Reg. 26 (May 4).

Premium coupons: Requires companies giving premium coupons with merchandise to advise OPS before increasing number of coupons needed for redemption. Effective May 9. GCPR, Reg. 25 (May 4).

Manufacturing reporting code: Gives code numbers to be used by manufacturers in filling out Form 8 by May 28, 1951. Effective May 28. CPR 22, Amend. 1 (May 4).

Fruits and vegetables: Temporarily exempts service fees charged by custom packers of fresh fruits, vegetables, berries, and tree nuts. Effective May 4. GCPR, Suppl. Reg. 15, Amend 2.

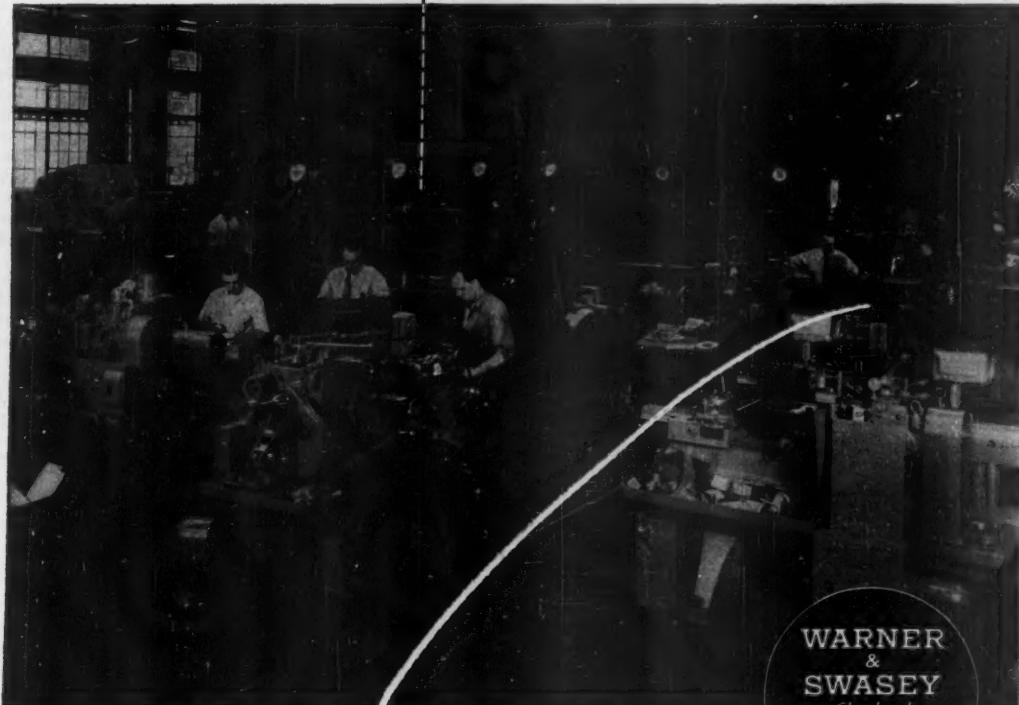
Our severest critics are right in our own plant!

● Contrasting with the constant pressure for production in other departments at Warner & Swasey is the calm, methodical work of one group of our men. These men are our severest critics—our final inspectors.

By the time an assembled turret lathe reaches one of these final inspectors, its individual parts have already passed 15,000 inspections!

But that is not enough! The final inspector carefully rechecks the completed machine—*proves* beyond doubt that it is ready to turn out the high precision work for which it is designed. Only then does he *sign his name* to a written report certifying that the turret lathe he passes is as perfect as human skill can make it.

Like our other departments, "final inspection" is working day and night to get machine tools to our shipping platform on schedule. But despite stepped-up production and urgent delivery dates, *no* machine leaves our plant until it meets the long-established Warner & Swasey standards for accuracy and dependability.



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SWASEY**
Cleveland
Machine Tools
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YOU CAN MACHINE IT BETTER, FASTER, FOR LESS WITH WARNER & SWASEY TURRET LATHES, AUTOMATICS AND TAPPING MACHINES



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CHICAGO, ILL.: Russell J. Hickmon, superintendent for Walter C. Stutman & Company, a leading independent appliance service organization, states that KLIKON protectors have been saving him time and trouble for years.

"In the years I've been serving refrigeration, air conditioning and heating equipment, I have found that KLIKON protectors eliminate motor burnouts completely. This simplifies our service work and promotes good will, not only between customers and our organization, but between customers and the appliance manufacturers."



The Klixon Protector illustrates keeps motors in electrical appliances and other motor-driven equipment from overheating and burning out. Look for equipment with Klixon-Protected motors for trouble-free motor operation.

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Div. of Metals & Controls Corp.
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The uniforms you want... when you want them... through the Angelica Plantswear Plan... for furnishing or selling uniforms to your employees. Angelica is ready to serve you quickly, conveniently, economically... with smart, durable washable uniforms that give your employees greater safety and working comfort.

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Name.....

Company.....

Address.....

City..... State.....

New Curbs on Building

From now on, any project using more than 25 tons of steel must get license from NPA. Aim is to postpone most construction that isn't vital to mobilization. Move surprises builders.

Last week National Production Authority, which has long frowned on the amount of steel going into structural uses, did something to cut it down. The something: an amendment to its M-4 construction order to require NPA approval for virtually all major construction, both public and private.

The amendment covers any project using more than 25 tons of steel. But it bears most heavily on industrial construction, since the original M-4 already required licensing of commercial building. Also affected are luxury housing (any single-family home costing more than \$35,000) and large apartments.

• Shock—The action came as a shock to the construction industry. Builders figured the previous NPA construction curbs, plus limitations on credit for housing, would be enough to balance structural steel requirements and supply. NPA didn't agree.

More important than the question of balance, though, was the fact that NPA wanted to cut back production of structural steel. Its aim: Get more output of shapes and forms needed by the military.

• Handling—Applications for industrial and apartment construction may be filed with any of NPA's field offices. But they won't be processed there, as is the case with some commercial applications. Instead, they'll go straight to Washington headquarters.

NPA is likely to be pretty tough with most applicants. One key question it will press is whether your particular construction job can be deferred temporarily without hurting either defense work or community life.

Until the bulk of the arms buildup is out of the way, NPA wants to postpone most construction that doesn't qualify as essential to mobilization. This includes such projects as newspaper plants (previously exempted from the commercial licensing list), television and radio stations, and schools, churches, and hospitals not urgently needed. NPA also wants to stall the building of new plants to make consumer goods.

• Unprepared—The new order not only surprised builders, but caught some government people off guard, too. Defense Production Administration, which has the final say on accelerated amortization, still has no firm policy with NPA on how to handle government-aided industrial expansion that includes major construction.

Thus it's still too soon to say what projects will be approved for early construction. The only thing certain is that if you now have a certificate for fast tax amortization, or a government loan or loan guarantee, you'll get quick NPA approval of any construction involved.

In the field of public works, NPA Administrator Manly Fleischmann has indicated that substantial amounts of steel will be made available for hospitals and schools, but "much less than usual" for highway projects. Chief mobilizer Charles E. Wilson has been talking the same line on highways for several months. Over the weekend he took definite steps to cut back on public works on a broader front by asking governors, mayors, and county officials to postpone all deferrable projects (page 132).

Disagreement on Units

Industry is giving NPA a mixed reception to the idea of unit control over production. That's a system that has been proposed as a substitute for the present method of control over consumer durables, which limits manufacturers to a percentage of the materials they used over a base period. Unit control would prohibit manufacturers from making more than a set number of items in a product line.

Refrigerator makers and the big auto companies have both gone on record against the new proposal. Some of the smaller auto makers favor the idea, as do a number of television and radio manufacturers. But their industry advisory committees have not yet turned in a recommendation on the proposal.

The Pictures—Cover by Robert Sloan. Acme—25 (bot. rt.), 76 (bot. lt.), 154; Rus Arnold—19; Combine—161 (top ctr., bot. lt., rt.); The Eastern Underwriter—76 (top lt.); Matt Grimaldi—126 (top); Harris & Ewing—25 (top), 30 (top lt., bot. ctr.), 36 (top); Int. News—30 (top rt.), 36 (bot. lt.); Keystone—161 (top lt., bot. rt.); Rae Russell—126 (bot.); Wide World—21 (rt.), 25 (bot. lt.), 30 (top ctr.), 36 (bot. rt.), 60, 92, 93; Dick Wolters—30 (bot. lt.), 76 (top rt.), 114, 115, 116.

"The radio says it's going to rain"



This is probably the commonest remark made in America. Millions of people say it every day. You yourself are always saying it without thinking. You heard it on the radio, so you act on it.

Actually the radio says no such thing. It simply reports what the Weather Man says.

We wish people would think more carefully about radio. But the fact is nobody really does. Any more than he thinks about which foot to put in front of the other, or how to blow his nose.

You can quote all the statistics you want about radio's amazing penetration and sales impact to prove what a great medium it is, how much better than any other medium. The statistics are true and available. But somehow they seem relatively pointless beside the essential fact that people believe what "the radio says."

This is the real secret of radio's power. This is why it is listened to more than any other voice in the land. This is why it is such an accepted* voice... such a useful** voice... such a friendly and familiar voice.

Radio doesn't know whether it's going to rain.

Radio is only a voice. It can be anyone's voice. It could even be yours.

* Most accepted: the voice of CBS, reaching 23% more people than that of any other network.

**Most used, too, by U.S. advertisers who invest 15% more on CBS than on any other network.

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Contract Relief

New rules provide for quick adjustments if you're threatened with loss due to errors made in hasty negotiations.

Are you stuck with a defense contract that threatens to become a loss instead of a profit? If so, new regulations now in effect may bail you out.

A lot of contractors got themselves in trouble during the rush to buy fighting equipment that followed the Korean outbreak. Many of their hastily written contracts now turn out to be full of errors and omissions.

• **Production Slowed**—When the bugs started showing up last fall, the military had no way of handling them. Production lines slowed down; some businessmen were faced with serious financial loss. The services concluded that some method had to be found to insure continuity of military deliveries at top speed.

And so, in January, Congress repassed sections of the first war powers act of World War II. Early in February, President Truman, by Executive Order 10210, authorized the Defense Dept. to amend defense contracts, regardless of other laws. The three services have now worked out the details for putting the order into effect.

Army, Navy, and Air Force are authorized to spend more money on existing contracts, without necessarily getting more for it. Contractors faced with losses on defense business can appeal for money to cover costs.

• **Red Tape**—In the past, some limited relief was possible by unraveling masses of red tape, if the General Accounting Office approved. But usually the contractor had to take the rap or default. Now most appeals will be decided on the spot by procurement officers, without GAO approval.

Relief under the new regulations won't be easy to get. There will have to be some good reasons and adequate evidence that it is in the national interest. One relief board operating during World War II handled almost 500 cases and approved only 25 for relief. There are cases on record already of defense contractors faced with bankruptcy because they made a bad bid.

• **Quick Relief**—But under the new procedure, the contracting officer will have the power to make quick and final adjustments in these types of cases:

"Mutual errors" in the contract where both the contractor and the contracting officer informally agreed to one thing and then unintentionally wrote something else into the contract.

"Obvious errors" of omission or

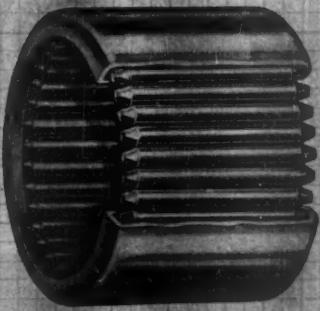


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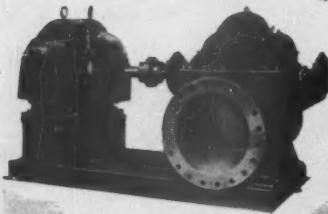
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commission that the contracting officer, as well as the contractor, should have seen.

"Ambiguities" where parts of the contract later turn out not to express intent clearly.

Where the situation is less precisely defined, special adjustment boards have been set up. Even here the contracting officer must first determine that the military buildup is going to be impaired if the contractor doesn't receive help,

although the board may later overrule him.

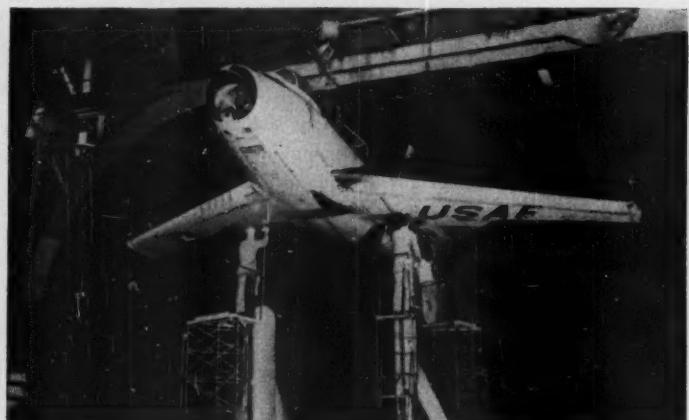
• **Final Say**—The boards have final say when:

- Unanticipated circumstances that arise after the signing of the contract threaten the contractor with a loss. A general wage increase might be one.

- "Unilateral errors," such as an item of cost not included in the original estimate and that not even the contracting officer would have discovered.



The World's Fastest Plane . . .



In World's Largest Wind Tunnel

A North American F-86 Sabre, one of the nation's top jet fighters and holder of the official world speed record of 670.98 mph., gets a "physical" at the world's biggest wind tunnel at Moffett Field, Calif. The Sabre is

hooked to a traveling crane (top), which carries it to the test area. Inside the tunnel (bottom), an air stream passes over and around the stationary plane, duplicates actual flight conditions.

Revolving Door

NPA builds a pool of trained controllers by promising to "rotate" businessmen after a six-month hitch in Washington.

Mobilization officials have stolen a leaf from the military's recruiting book to attract businessmen to Washington jobs. They now offer short hitches in government service with exemptions thereafter from further Washington duty, except in case of a more serious emergency.

• Sales Talk—Here's how it works:

Top officials of the National Production Authority—the first agency to try the new scheme—draw up a list of candidates for 40 or 50 of its top operating jobs. When a vacancy looms, a likely "prospect" gets a call from NPA. The sales talk goes something like this:

There's a job in Washington for you. It's right down your alley—a large part of it is dealing with your own industry. You can take it for as little as six months, though we'd like to have you longer if your company can spare you. And we won't call you again during the present mobilization program unless we absolutely have to.

• It's a Three-Way Deal—Main idea, of course, is to get top-level industry people for NPA's industrial operations branches. But, in addition, the materials controls agency feels it is serving two other important purposes:

(1) It's building up a pool of businessmen trained in NPA procedures, particularly, and in broad governmental operations, generally. In event of all-out war, the agency figures it would have to expand rapidly. It could do so readily by dipping into those who had served their hitch in Washington and had been "rotated" back to industry.

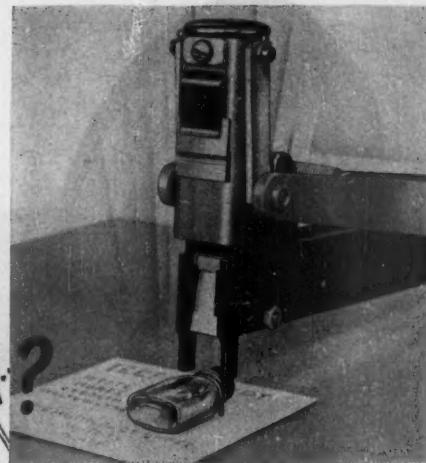
(2) By rotation of businessmen in NPA jobs, the agency gets a continually growing understanding among industry people of its objectives and problems. This, NPA people feel, will lead to more cooperation from business.

• Nichols' Baby—The plan was evolved by NPA's deputy administrator, Thomas S. Nichols, who took leave last March from his job as president and board chairman of the Mathieson Chemical Corp., to help the agency with its recruiting difficulties. Nichols soon found that businessmen's reluctance to take NPA jobs revolved around two questions for which no one seemed to have an answer: How long will I have to stay, and what kind of job will I be doing?

The recent reorganization of NPA, in which Nichols had a big part, answered the second question. Previously, the agency had been recruiting busi-

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THE ACCURATE CONTROL of this model E Bostitch stapler applies just enough pressure to the staple to hold the bottle tightly without fracturing the glass. Over four hundred models of Bostitch foot- and motor-operated staplers . . . and four hundred other models —hammers, tackers, pliers, wire stitchers . . . offer solutions for your fastening problems, too.



PACKAGING SMALL PARTS for safe shipment is faster and easier with a Bostitch P-4 Stapler. Clinches sturdy staples up to $4\frac{1}{4}$ inches from edges. Ideal, too, for making up shipping containers from used stock.



FASTENING IN TIGHT CORNERS is easy work with a Bostitch T-5 tacker. Drives staples within $1\frac{1}{8}$ inches of inside edges, corners or other obstructions. Saves valuable time for thousands of insulators, builders, woodworkers, shippers.

SPEEDS FASTENING, CUTS COSTS . . . in merchandise carding, in carton sealing, in construction work. There are thousands of other cases where Bostitch fastens it better and faster with wire. Your toughest fastening problem may have been solved already with Bostitch machines. There are more than 800 Bostitch models . . . staplers, hammers, tackers, pliers, wire stitchers. Which ones will cut your fastening costs? 300 field men in 112 key cities in the U. S. and 11 key cities in Canada make it easy for you to find out. Fill in and mail the coupon today and get full information about the specific Bostitch machines best suited to your requirements.

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Please send me literature on specific Bostitch machines for my fastening needs together with your free "Time and Money Saving" Book.

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TOLEDO to guard your costs better!

The story of Toledo Scale Company is probably as typically American as can be found in industry. From modest beginnings, a market was developed for a growing line of equipment honestly built and increasingly useful. Today, Toledos serve throughout industry . . . wherever high accuracy and dependability are demanded in weighing, counting, testing or force-measuring.

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In your community you'll find Toledo as near as your phone; there are Toledo sales and service offices in more than 200 cities ready to help you in the selection or maintenance of equipment vital in guarding your materials and costs.

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nessmen principally for its single, sprawling Industry Operations Bureau. The bureau, which was responsible for contacting virtually all segments of industry and administering controls for each, had just grown like Topsy. Lines of authority, even job definitions in many cases, were vague.

The reorganization split the bureau into four new groups with a total of 30 operating divisions functioning under them. Bureau and division chiefs were given broad authority to work out controls policy for their specific industries.

Nichols then worked out his rotation scheme for bureau chiefs—who got the rank of assistant administrators of NPA—and for division heads. Continuity of policy and procedure was provided by appointing career government employees as executive secretaries to the bureau chiefs.

How is it working?

"Fine," says Nichols. "We're getting the kind of men we need when we need them. Of course, we were always able to get a number of retired businessmen. . . . But for the top operating jobs, it usually requires a younger man to stand the gaff."

DEFENSE BUSINESS BRIEFS

A lump allotment of materials has been delegated to Rural Electrical Administration by Interior's Defense Electric Power Administration—for distribution to REA's 1,000-plus borrowers. REA got the allocation job after a bitter fight with private electric utilities.

Makers of wire-bound boxes are trying to get into the essential-industry camp. If they can get a CMP allocation for galvanized steel, they can also issue DO's for veneer—in short supply due to the severe winter and poor logging season.

The 45-day inventory limitation on steel users won't work for power transmission and conveyor chain makers, the industry told NPA. A wide range of types and shapes of steel is normally stocked, and orders do not follow any particular pattern. Result: Inventories usually are from 90 to 120 days' supply, the industry's advisory committee reported.

Fountain pen and pencil makers have staked their claims as essential industries. They're after a CMP allocation of their own.

Another cut in tungsten supplies is coming. Tungsten has been at the top of the critical shortage list for several months. NPA warns that it will be even harder to get in July and August. There's no relief in sight.



Food Machines—
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Cutler-Hammer Dimmers...

Architects and consulting engineers specify Cutler-Hammer Dimmers for beautiful lighting effects in churches, school auditoriums, lodge halls, restaurants, skating rinks, hotel lobbies and ballrooms, as they do for the nation's theaters.



Cutler-Hammer Breakerpanels...

Every type of building from the smallest home to the largest office building can now have convenient, inexpensive, modern Cutler-Hammer Multi-Breaker protection in place of troublesome fuses. Resetting a little lever restores service after overloads.



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Modern buildings of every kind use many electric motors; for pumps, fans, blowers and scores of devices from complex air-conditioning systems to simple door openers. Architects, consulting engineers and electrical contractors have long shown a marked preference for Cutler-Hammer Control for these needs.

The modern building is far more than a mere shelter. As it comes into being from the architect's plans, it reveals itself as a carefully engineered "mechanism for human comfort and convenience". It incorporates a complete network of arteries for electric power . . . electricity for illumination, for ventilation, for refrigeration, for transportation, for communication, for heating, for pumping, etc.

The architects, engineers, and contractors who create these buildings know how much the trouble-free performance of electrical facilities means in shaping their reputations. As a consequence, Cutler-Hammer Motor Control has long been their outstanding choice for every building need. For

Cutler-Hammer general purpose motor control is recommended by a majority of all electric motor manufacturers, is featured as standard equipment by machinery builders, is carried in stock by recognized electrical wholesalers everywhere.

more than a decade they have selected Cutler-Hammer Multi-Breakers as the perfect circuit protection for homes, and more recently have welcomed Cutler-Hammer Breakerpanels as the logical extension of this same protection to larger buildings. Today they are finding ever wider use for Cutler-Hammer Dimmers; not only in theaters but in churches, schools, restaurants, hotels, public buildings, even in homes . . . for simple variable lighting effects with remote pushbutton control. When the name plate says "Cutler-Hammer", you too can be sure of trouble-free performance "as specified". CUTLER-HAMMER, Inc., 1275 St. Paul Ave., Milwaukee 1, Wis. Assoc.: Canadian Cutler-Hammer, Ltd., Tor.



INTERNATIONAL OUTLOOK

BUSINESS WEEK

MAY 12, 1951



The world knows a lot better now where the U. S. stands—thanks to the MacArthur hearings in Washington (page 25).

Both MacArthur and Marshall have laid it on the line for our enemies. The question is whether Moscow and Peiping understand the thing both said: Despite differences over tactics, the U. S. means to stand firm.

Gen. Marshall cleared the air this week as far as Korea is concerned. He expects the Chinese—bled white by manpower losses—either to abandon the Korean adventure or to attack again, actively aided by the Russians.

If they choose the former, the door is still open for peace.

If it's the latter, the U. S. will retaliate.

*
On the other side of the world, it looks as if the Atlantic Alliance is tightening up:

- Charles Wilson's promises that Britain and France will get a fair share of necessary raw materials went down well, calmed fears. Plenty of work on the problem remains, though.
- The Atlantic Pact administrative setup has been streamlined, is gaining strength.
- The Allies are coming closer together on Far East policy.

*
London is closer than it looks to the U. S. point of view in the Orient.

Attlee and Morrison are moving slowly, of course. They have the Bevan rebels to contend with, plus Conservatives who worry about further jeopardizing British interests in China. But there are some important straws in the wind.

For one, Britain has indicated that it will go along with the U. S. if we find it necessary to bomb Manchuria in retaliation.

Whitehall is no longer insisting that Peiping get a U. N. seat as a price for peace.

British policy is swinging in favor of a U. N. arms embargo against China. It's still against an all-out naval blockade, however.

London has made broad concessions to U. S. desires on the Japanese peace treaty.

The concessions: Britain has waived its demand for a cutback in Japan's shipbuilding capacity. It has stopped insisting that Peiping be included in negotiations or that the treaty promise Formosa to Red China.

*
All this may be the reason Moscow wants four-power talks on Japan.

The Russian proposal is a last-ditch attempt to stave off the treaty. Also, Moscow hopes to exploit U. S.-British differences again. London has felt Russia and Red China ought to sit in on the peace pact.

The Kremlin plan for a Far East confab may be the reason Gromyko has been stalling so in Paris. Now that German remilitarization is completely bogged down, the Soviets are shifting attention to Japan.

But the West isn't buying. The U. S. has rejected the Russian note; and the pressure is on Gromyko in Paris to put up or shut up: Does Russia want to meet with the U. S., Britain, and France, or doesn't it? A showdown is due soon.

*
The Allies want a Mediterranean defense command. But organizing it is a real headache.

Each nation wants to be top dog in a Mediterranean setup. To Eisen-

INTERNATIONAL OUTLOOK (Continued)

BUSINESS WEEK

MAY 12, 1951

hower, the Mediterranean is protection for his right flank. To Britain, it's the lifeline to the Middle East and India. To France, it's the all-important link with North Africa.

It looks now as if the Joint Chiefs of Staff are in favor of naming a British admiral as supreme commander in the Mediterranean—mostly for political reasons. (The British are still fretting that an American got the Atlantic command.)

Meantime, Greece and Turkey are hollering for admission to the Atlantic pact. And that's causing a domestic squabble in the U. S. The Air Force wants Turkey's airfields, hard by the Russian border. The Army, however, hesitates; it doesn't want to add to its already over-extended ground commitments.

West Germany's conservative government has troubles from the left and right—the Socialists and the neo-Nazis.

Socialist leader Kurt Schumacher has redoubled his attacks on the Schuman Plan, calls it a "plot to enslave Germans for 50 years to come." The German parliament may be persuaded not to ratify the plan.

This week the refurbished Nazis made important gains in the Lower Saxony elections. Lower Saxony isn't typical of German opinion, but everywhere there's a rising extremist, nationalist trend.

The International Materials Conference in Washington has come up with some bad news: Formidable raw materials shortages for years.

Here are some preliminary figures on the world's deficits:

- Copper—600,000 tons a year.
- Zinc—250,000 tons a year.
- Lead—200,000 tons a year.

Tungsten and molybdenum requirements will far surpass available supplies.

Importers are glad, some domestic producers sad about Washington's big batch of tariff cuts this week.

The U. S. has chopped duties 25% to 50% on 1,325 imported items—valued at \$500-million in terms of 1949 trade.

One result of the cuts: There'll be more—and cheaper—German goods for U. S. manufacturers to take note of. It's the first U. S.-West German tariff deal under the Reciprocal Trade Agreements Act; Germans got lower duties on cameras, machinery, precision instruments, clocks, many others.

Actually, most businessmen aren't worrying much. Business is too good here at home to get steamed up about tariff concessions now.

The long-standing obstacles to the development of Brazil's oil resources are slowly but surely evaporating.

For years now, Brazil has refused to let outsiders touch its oil, yet it couldn't do the job alone. And foreign oil men refused to offer terms acceptable to the Brazilians.

Now the tightening world oil situation is forcing both sides to reconsider. Brazilian officials are all talking compromise; some U. S. oil companies—among them Standard Oil (N. J.)—are in a huddle with President Vargas. Discreet negotiations, if not actual terms, should start soon.

BUSINESS ABROAD



DIED

Ernest Bevin, sturdy, long-time Foreign Secretary.

RESIGNED

Sir Stafford Cripps, Labor's top economist, long ill.



RESIGNED

Aneurin Bevan found Labor not leftist enough.

RESIGNED

Harold Wilson followed Bevan out of Cabinet.



BACK IN?

Huge shadow of Winston Churchill, wartime leader and Conservative, lies across the tottering Labor government. Best opinion in England today is that Churchill will be back as Prime Minister by yearend.

Last Act for Britain's Labor Government

LONDON—The curtain is falling on Britain's Socialist government. No one around Westminster these days doubts that before the year is out old warhorse Winston Churchill will once again be Prime Minister.

When militant, cantankerous Aneurin Bevan kicked over the party traces two weeks ago—taking Harold Wilson with him—he mortally wounded Labor. The party was already staggering from the loss of leaders like Ernest Bevin and Sir Stafford Cripps.

• **Attlee's Back**—But there's still a last act to be played—and Prime Minister Clement Attlee means to play it out. He's back from his bout with ulcers now, seated prim and firmly unemotional in the Commons front bench. He clearly considers it his duty to restore Labor's claim to be capable of responsible government and rearmament—before Britain and before history.

Attlee can hang on for quite a time. The party split was quickly—though

superficially—plastered over. Attlee immediately got a vote of confidence from the party's National Executive Committee and from the Trades Union Congress. And last week in the first critical House of Commons vote after the resignations (on the question of raw materials for defense), both former ministers voted with the government as they had promised to do.

• **Well-Received**—What's more, the new ministerial appointments—replacements for the rebels—have been well-received in London. Smooth Sir Hartley Shawcross, former Attorney General, succeeded Harold Wilson, Labor's "boy wonder," as President of the Board of Trade. Sober Alfred Robens, a union official, has followed the wild-eyed Bevan into the Ministry of Labor. And Socialist businessman Richard Stokes has been given a cabinet post riding herd over raw materials supplies—a key issue in the political crisis.

All in all, the government's unity has

been much improved by getting rid of the troublemakers. And it still commands a majority in Parliament—though it lives under constant threat of a snap defeat should the Labor dissidents decide to bring down the house by voting with the Conservatives—or abstaining.

• **Empty Hope**—Labor Party bosses, whistling to keep their courage up, say that by October the political winds may change, and Labor may find a favorable issue to fight on. But it's probably an empty hope, what with the inevitable rise in living costs and the growing impact of renewed austerity sharpened by raw material shortages. If Attlee decides to call it quits and go to the nation (or is defeated), he'll probably have the workingmen voting solidly for him. But the housewives—dog-tired of austerity—might turn him out.

• **Party Crisis**—Though Attlee's government may have closed ranks, the Labor Party itself faces a crisis. The split was only healed at the top. Bevan's real



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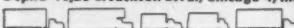
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case—that the defense effort should be limited so that living standards won't be endangered—has wide support in the local party organizations. The arms program is heavy—and there's great risk of industrial disruption due to the squeeze on supplies from abroad.

The fear of unemployment still dominates the thinking of British workers. To millions of them, the "employment exchange is nearer than the Red Army." (The exchange is a government-run employment service; it also doles out relief payments under the unemployment insurance laws.)

• **Responsibility**—This attitude is no passing phenomenon. It's a fundamental difficulty of any "workers" party trying to govern in time of a threat to national security. The British Laborites have always boasted that theirs is not like other labor parties; that it can bank on the political maturity of its members to support unpopular policies when the national interest requires.

That claim has some foundation, and, while Chancellor Cripps was active and Ernest Bevin alive, workers were persuaded to take the responsible view. But now the applecart has been upset by Bevan's rebellion. He has told Britons that their belts needn't be tightened—if only the government would soften rearmament and untie itself from behind the "wheels of American diplomacy" and the unrestrained "lurchings" of U.S. capitalism.

The government is doing its utmost to quell that type of thinking. Attlee is determined to hold the rearmament schedule—rather than to yield and restore party unity. Foreign Secretary Herbert Morrison states grimly that, if raw materials are inadequate, arms must come first. Chancellor of the Exchequer Hugh Gaitskell echoes that, if defense production falls below the target, taxation will be toughened so as to transfer resources to arms industries. No cabinet minister is permitted to give the slightest hint that the defense impact might not be so harsh after all.

• **Ambitions**—Attlee's determination hands Aneurin Bevan a fertile field for agitation—and he aims to reap whatever political gains he can. He'll insist that welfare services remain unimpaired. He'll insist that the whole financial burden—paying for some guns and plenty of spectacles at the same time—be slapped on corporation profits and capital gains.

His campaign is just beginning. Even moderate success would force Attlee to resign, rather than allow the party to split down the middle. Actually it is such a split that is likely to bring a general election to Britain this year rather than the untiring frontal attacks of Winston Churchill in Parliament.

• **Influence Lost**—The international effects of Britain's governmental crisis de-

pend on how this intraparty battle works out. Even if Attlee holds the fort, Britain's foreign policy will lose some influence. Other nations can't forget that the policy is made by a government that's living only on borrowed time.

And if Attlee is forced to water down the defense effort to appease malcontents steamed up by Bevan, Britain's contribution to the Atlantic Pact will be jeopardized. That would mean further friction between Washington and London, already considerable over differences in Far East policy and over commanders in the Atlantic and Mediterranean areas.

• **Recuperation**—Odds are that Attlee won't yield. If party unrest gets out of his control, he'll resign—and rally the party for five years or more recuperation in the political wilderness. He can rest assured that the Conservatives will leave intact a good 80% of the Socialist reforms.

"In opposition," says the Manchester Guardian, "the party's wounds would heal." Yet Aneurin Bevan is a man of tremendous ambition; he appears dedicated to carrying high the torch of "true socialism" and, perhaps one day, installing himself as head of the party over the aging moderates like Mr. Attlee.

U.S., Canada Discuss Curbs on Stock Frauds

U. S. and Canadian officials met last week in Ottawa to curb across-the-border racketeering in "hot" oil, gold, uranium, and other mining stocks. For a long time now, unscrupulous promoters in Canada have been unloading get-rich-quick shares at penny prices in the U. S.

New fraud-prevention legislation—with a possibility of an extradition treaty to get at the "hot stock" promoters—was discussed thoroughly. But no immediate legislation in that direction is in the cards now. For the present time, at least, it was suggested that U. S. state authorities work more closely with their counterparts in the Canadian provinces.

What may result from the meetings is a system of swapping information; the Securities & Exchange Commission in Washington and perhaps the Justice Dept. in Ottawa would act as clearinghouses. At present, if an Ontario high-pressure group operates via phone or telegraph to New York clients, complaints may be made to the New York Attorney General. But New York doesn't inform the SEC, authorities of other states, or officials in Ottawa quickly enough to prevent the damage from being done.

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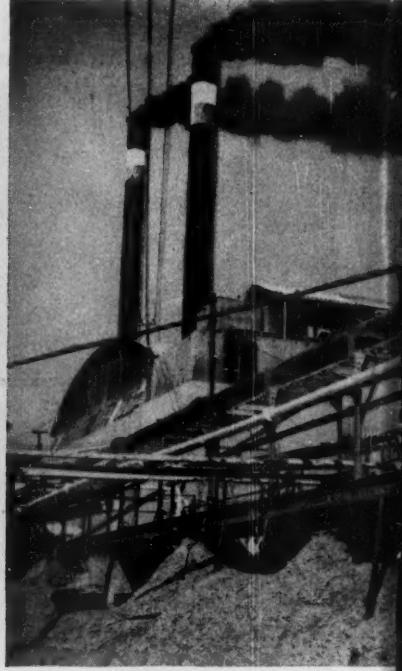
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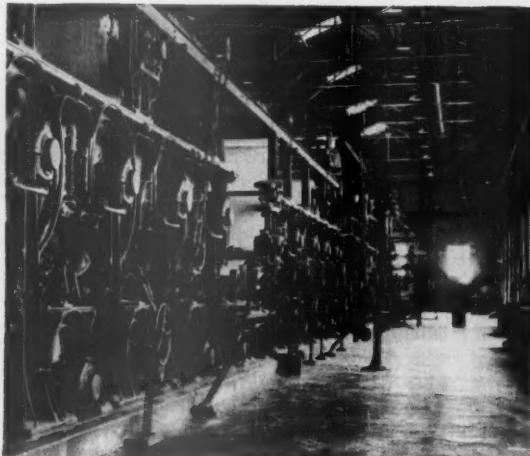


1 Sugar cane from Peruvian fields enters W. R. Grace & Co. mill at Paramonga. The mill extracts sweet juices from cane, produces both raw and refined sugar. . . .



2 Bagasse—sugar cane waste—piles up outside used for fuel; now it's baled, dried in the sun.

In Peru, Sugar Cane Evolves Into Paper



3 Paper mill. Here bagasse is processed into a wide variety of grades and weights of paper, to go to printer or to



4 Factory at Lima, a Grace subsidiary. It makes bags, boxes out of Paramonga paper. Here coarse paper becomes boxboard.

"The most highly satisfactory papered our company has ever handled."

That's what a Los Angeles container manufacturer thinks of paperboard made out of sugar cane. He got the board from an unlikely place—Peru—and from an unlikely supplier—W. R. Grace & Co., international bankers, ship and plane operators, sugar refiners, industrialists. Here's the story:

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sugar mill. Bagasse used to be thrown away or shipped to paper mill.

Grace operates several large sugar estates in Peru. Twenty years ago it began experimenting with bagasse, the dried-out, fibrous waste that remains after sugar has been squeezed out of the cane. The idea: papermaking.

The results were good, but ultra-conservative Grace kept mum about them. For 11 years now, the company's paper mill at Paramonga, Peru, has been quietly turning out paper on a commercial scale—for bags and boxes, newsprint, cigarette and writing papers.

• Secrets Unlocked—Last summer, a newsprint shortage threatened to close down some of Peru's leading newspapers. Grace moved in, providing some of its newsprint made from bagasse. The stuff ran well on Peru's presses, and the incident—plus the mounting paper shortage in the world—persuaded Grace to take the wraps off its process.

There was a second reason why Grace uncovered its technique. It decided it was no longer practical to try to exploit the process solely on its own.

Grace went to the Sandy Hill Iron & Brass Works, a 100-year-old paper and pulp machinery manufacturer in Hudson Falls, N. Y. Sandy Hill was authorized to license and manufacture the machinery Grace had developed for general use around the world.

Early this year Grace decided to try its paper out on the U.S. It sent two small shipments (around 400 tons) of

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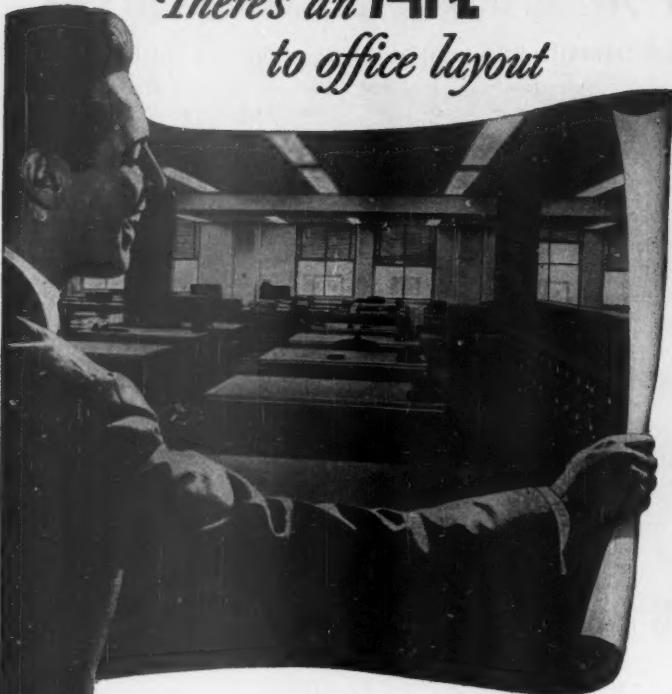
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corrugated boxboard to Quaker Container Co., Los Angeles. Quaker tested the board and came up with glowing results. A crush test showed that the sugar-cane board could stand an average pressure of 339 lb. per square inch. Normal chestnut board of the same weight used for containers will break down at 256 lb.

• **Token Shipments**—U. S. manufacturers can't expect anything more than token shipments from Peru, however. The Paramonga mill is small, turns out only 16,500 tons of various kinds of papers yearly (a large U. S. mill might turn out 90,000 tons). What's more, Grace figures that its first responsibility is to fill local Peruvian needs—which are tremendous.

However, Grace is trying to persuade other sugar growers to look over the process and to use Grace machinery. There have already been some results: Producers in Hawaii, Cuba, Egypt, Brazil, India, and the U. S. want to know more about Paramonga, and some have sent their engineers to Peru.

• **Commercial First**—Grace officials claim theirs is the first commercially successful sugar-to-paper process. The idea isn't new, though. There have been many experiments, and some small production of wallboard and writing paper has resulted. Hawaiian sugar men have gotten on the track recently, setting up a pilot plant to make pulp from sugar cane (BW-Feb. 17 '51, p110).

BUSINESS ABROAD BRIEFS

Canadian notes: A big buying spree—most of it for military equipment—has boosted Canada's trade deficit with the U. S. The deficit is \$138-million for the first quarter, up from \$25-million for the same period in 1950. . . . Chas. Pfizer & Co., Brooklyn drug house, has set up a new subsidiary—Pfizer Canada, Ltd.—to handle Canadian sales of terramycin and other products. . . . Vancouver, B. C., will get a \$3-million suburban shopping center. Robert Simpson Pacific, Ltd., Canadian department store chain, will build it. . . . Behr-Manning Corp., abrasive manufacturer, has a new Canadian division at Brantford, Ont. . . . Algoma Steel Corp., Ltd., has bought control of Canada Steamship Lines.

Ladies shoes from Israel—1,000 pairs—have arrived at Scheinmann Shoe Co., New York. They're the first in a series of shipments from American Footwear Corp., Tel Aviv.

They're bottling Pepsi-Cola now in Kenya Colony, East Africa. A new plant at Kampala is Pepsi's 10th bottling operation in Africa. Company officials

say that four or five more are in the works.

Willi Messerschmitt—plane designer—is the latest German industrialist to show up in South Africa. He's interested in setting up a plant near Johannesburg to make cars and farm machinery—but, he says, no airplanes.

Egyptians are nursing a grandiose scheme to turn the Wadi Rayan depre-

sion—in the desert east of the Nile—into a vast fishing pond, a reservoir, and a winter resort. The cost would be \$57-million; the project would reclaim 1-million acres of desert land for farming.

Foster Wheeler Corp., New York manufacturer of powerplant and refinery equipment, has set up shop in France. A new subsidiary, Societe Foster Wheeler Francaise, will handle the

company's sales and engineering there, working along with French industrialists.

Brazil business: Standard Oil Co. (N. J.) is thinking about joining Brazil's oil hunt. Company officials visiting there say they'll work with Brazilian capital on an equal share basis. . . . Production of Borg-Warner refrigerators has begun at Sao Paulo. Output is scheduled at 12,000 units annually.

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Too Much Work, Not Enough Product

In the cheerful news from the production front there's one worrisome note. We are smashing records in making all kinds of goods. But we aren't doing it so efficiently as we should. We're using more resources per unit of output in industry than we ought to be.

Productivity—output per manhour—in manufacturing is climbing at perhaps no more than 1% a year. That stacks up badly against our long-term annual average of 3%. It's a thing that has the experts, like Solomon Fabricant of the National Bureau of Economic Research, worried (BW—May'51,p64).

This ailing productivity in manufacturing is a top priority problem for us right now. There is no big, idle supply of machines, materials, and men to draw on for increased output. The gains we make in stepping up over-all production must come in good part from getting more out of the resources we have, i.e., higher productivity.

This is a new problem for our economy. There has been little need in the past to press our productive system so hard for so long. But now we face an indefinite period when we will badly need all the production we can get for defense, plus enough goods to keep up civilian morale and help check inflation. And haunting this period is the prospect of material and labor shortages.

As Fabricant spelled out in his interview with *BUSINESS WEEK*, productivity has had sledding in the kind of economy we have today. He spoke of the hobbles put on it by depression-spawned programs for agricultural and social security. He pointed to the spread of unionization. These, whatever their merits, have shifted maximum production out of the target bullseye in favor of other goals.

Key Factor

Along with these changes, Fabricant put his finger on another factor that has hampered gains in productivity: lack of cost consciousness on the part of both management and labor. There has been no shaking down after World War II like the 1919 slump or the 1921 depression after World War I. Demand has been so great that high prices have been no deterrent to sales. The high costs of inefficient production have been easily passed along.

So powerful have been these negative forces that the \$65-billion postwar investment program of American industry has not been able to get manufacturing productivity back on the long-term upward trend of 3% a year. A good share of these capital goods expenditures, of course, has been to enlarge output, not specifically to cut costs. But, that aside, the huge spending for modernization and improvement has been disappointing in its results so far.

Investment is obviously not enough. To it, as Fabricant says, must be added a willingness to use new ma-

chines and new methods to get out their maximum potential. That is a matter of will—individual and national. And it is a matter of incentives.

Incentives go to the heart of the problem. In a buyers' economy, incentives are strong both for labor and management to produce efficiently. The prod of necessity sees to that. In today's economy that prod is not much in use. Jobs and markets are easy to find. Worse than that there are specific incentives to be inefficient. The excess profits tax encourages wasteful business spending, raises costs, and impairs productivity. Government-approved maintain-your-standard-of-living-at-all-costs schemes, like farm parity and escalator wage contracts, work in the same direction.

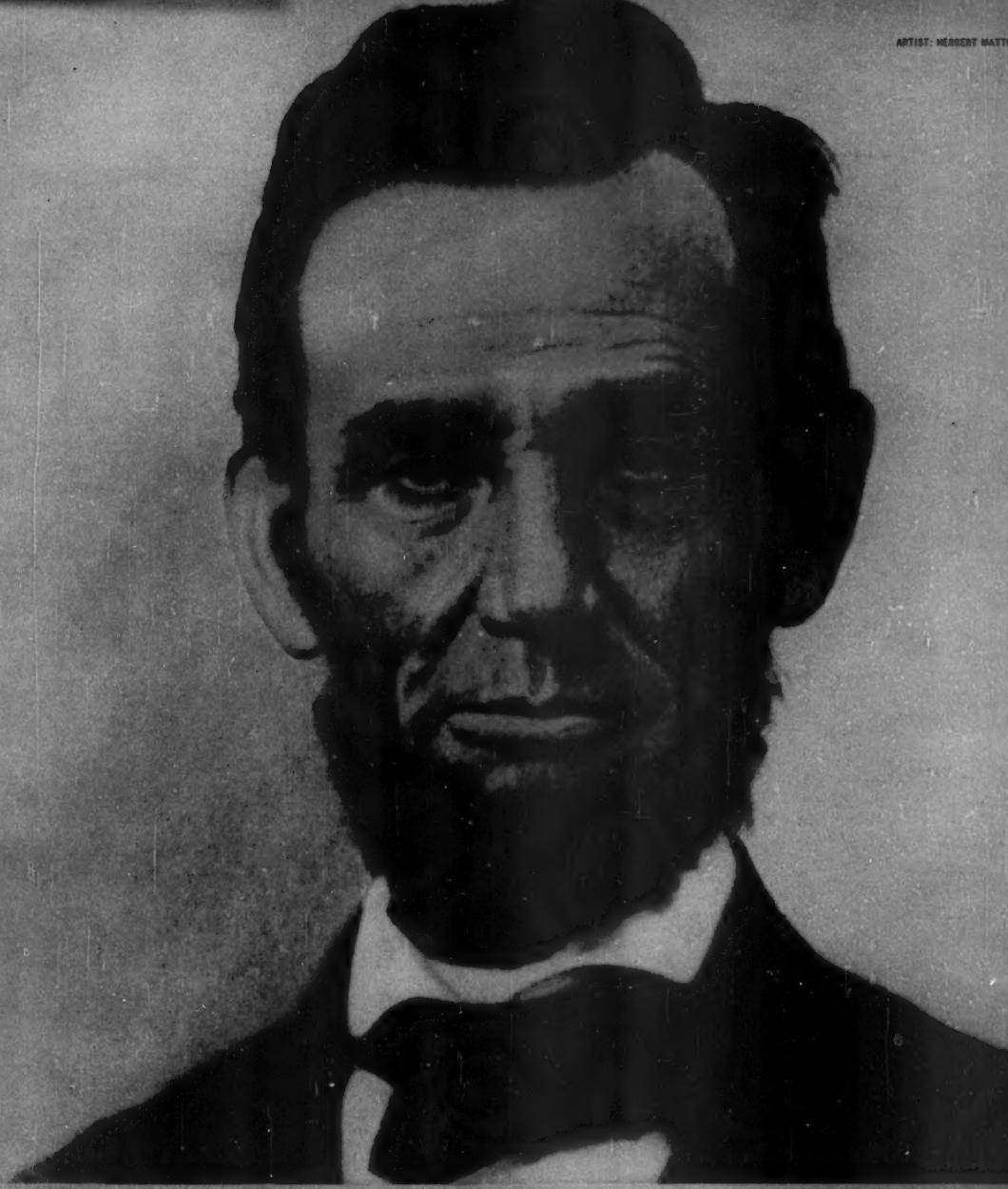
It's a good deal easier to state the need for rising productivity than to tell how to get it. One thing is sure: To offset the negative factors at work, we need all the investment in new machines and methods allowable within the margins of the mobilization program. But more than that we must make maximum use of these tools. To find the incentives to do that in our kind of economy is one of the top problems this generation has to face.

High Wives

The economic consequences of Mike DiSalle and his price controls move like ripples on a pond. In Africa men murmur that ceilings are needed on the price of wives. No details are yet available as to how or at what level such a ceiling would be fixed or by whom it would be enforced, but the United Nations is considering the situation.

The economics of the matter are classic in their simplicity. The supply of young girls is limited. Demand comes from two sources—the old polygamists who want wives both for their useful labor and for display, and the youths who need at least one apiece to start a family. The old polygamists are rich, the young men poor. The business of selling wives is in the hands of the tribal elders. Being good merchants, they put aside questions of emotion and sell to the highest bidder. The price factor in this limited economy makes it possible for polygamists to become monopolists.

The only people who protest against the unhampered operation of supply and demand are the youths who cannot afford to buy and the girls who want to be sold to young husbands. The nine international organizations of earnest ladies who have brought the matter to the United Nations sympathize with the young, but with a firmness that would do credit to a classical economist they object to a price ceiling because it would "write the evil into the law." Africa, at least, is to be kept free from the DiSalle influence.



A Lincoln

The prudent, penniless beginner in the world labors for wages awhile, saves a surplus with which to buy tools or land for himself, and at length hires another new beginner to help him. This is the just and generous and prosperous system which opens the way to all — gives hope to all, and consequent energy and progress and improvement of condition to all.

(Message to Congress, 1861)



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